

The Estimation of Costs Attributable To Substance Abuse and Loss of Productivity for Inmates at Glendairy Prison: Barbados

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EXECUTIVE SUMMARY

The study was an attempt to estimate the costs associated with drug use among prison inmates. An attempt was made to interview 150 inmates however the actual population size was reduced to 140 inmates who represented a 93% response rate. Although the response rate was high, individual responses to some questions were low. This limited the possibility of assessing the statistical relationships between some variables. The response to any drug related question was a maximum of 45 inmates; this represents 30% of the total sample population. This may be a reasonable response rate if it is considered that the number of inmates who are in prison for drug related crimes represent 24% of the non-remand population.

A total of 81 or 58% of the inmates interviewed said that their crime(s) was drug or alcohol related. This percentage represents crimes committed under the influence of drugs and alcohol, crimes committed to obtain drugs, crimes associated with the sale of drugs and crimes associated with drug trafficking and production.

In an evaluation of the relationship between illicit drug activities and the type of crimes committed, the results revealed some interesting but expected results. Again it should be noted that these are crimes that the inmates admitted to and not necessarily what they were convicted for.

A higher proportion of the crimes committed under the influence of drugs were acquisitive or violent type crimes while crimes committed to obtain drugs tended to be acquisitive in nature. However there seems to be a tendency for the crimes associated with the drug economy to be more of the violent type and crimes associated with drug production and trafficking to be related to illicit drug crimes, that is drug sales, possessions, importation, etc.

Thirty percent (30%) of the inmates committed crimes under the influence of drugs and alcohol. Nineteen percent (19%) of those interviewed said that they used drugs only on the day of the crime, compared to 4% of inmates who admitted to crimes solely under the influence of alcohol. Nine percent (9%) said they used both drugs and alcohol.

Twenty four percent (24%) of the violent crimes were committed when drugs and alcohol were used: 13% when drugs were used alone; 2% when alcohol was used alone and 9% when drugs and alcohol was used together. Forty one percent (41%) of the acquisitive crimes were committed under the influence of drug and alcohol: 30% when drugs were used alone; 2% when alcohol was used alone and 9% when drugs and alcohol was used together.

Fifteen percent (15%) of the drug crimes were committed when drugs and alcohol were used: 4% when drugs were used alone; 4% when alcohol was used alone and 2% when drugs and alcohol were used together.

Crimes committed to obtain drugs were overwhelmingly of the acquisitive type. Eight-four percent (84%) of the inmates admitted to committing acquisitive crimes to buy drugs. Robbery and burglary were the most prevalent of this crime category. In comparison to the previous categories, crimes related to the drug economy (or the sale of drugs), drug related and violent crimes were the most common. Thirty percent (30%) of the sample population admitted to being involved in drug production and drug trafficking. Twenty-two percent (22%) of inmates sampled committed crimes related to

drug trafficking. Of the 32 inmates, 12 were females. Drug trafficking crimes were the prevailing crime among females.

The monies received from drug related crimes over lifetime use ranged from a minimum of BDS \$100.00 to a maximum of BDS \$300,000.00. One inmate reported an estimated worth of his drug crimes to be one (1) million dollars. Given the statistics from the police, this may not be an unrealistic figure.

The cost of drug related crime as reported by the police is estimated at \$30,870,000.00 as of November 2004. The police statistics indicate the worth of drug related crimes in excess on 30 million annually, between 2000 and 2004. This estimate however is mainly the worth of seized drugs and not of the crimes committed to obtain drugs.

The calculated economic cost of inmates who committed drug trafficking crimes, was estimated at a total of BDS \$1,659,481.69 over the period 1996 to 2004. This included the cost of housing the inmates and the loss of productivity, based on the wages they could have earned if they were not in prison.

1. INTRODUCTION

The impact of substance abuse on criminal behaviour is of particular concern to the Government and people of Barbados. Statistics have indicated that a growing number of crimes are committed to support a drug habit (National Task Force on Crime Prevention 1997). The National Task Force on Crime Prevention reported that statistics on risk factors among inmates in prison indicated that 54.7% of the respondents stated that monetary gain was one of the primary reasons for committing crime. Further details from 31.3% of respondents indicated that the desire for money was the primary motive, while 23.4% specified the need for money to support a drug habit as their reason. Illicit drug use was admitted to by 86% of the men in the study (National Task Force on Crime Prevention 1997).

When individuals are incarcerated due to crimes associated with illicit drugs or other crimes, they are partially or totally removed from the productive economy. This results in a loss of potential productivity to the economy. While this loss represents a conscious decision by society, deemed to be justified on the basis of protecting other citizens and punishing offenders, it is nonetheless a withdrawal of a certain number of the populace from the possibility of participating in productive activities. This withdrawal, or loss, is reduced to the extent that prisoners engage in work while incarcerated, either for outside purposes, or to support the prison (WHO 2003). Data about incarcerated populations can therefore assist with estimating the costs of criminal activity due to use and sale of psychoactive substances.

One type of study used to develop this estimate is a survey of prison inmates. Such a study allows for an analysis of factors believed to be involved with criminal behaviours, including whether the individual persons have a history of psychoactive substances use, or was under the influence of such substances at the time that they committed the crime for which they were incarcerated. This methodology will be employed to investigate the cost impact of criminal activity associated with drug use in Barbados.

2. PREVIOUS RESEARCH

Single et al. (1996) conducted a study on behalf of the Canadian Centre on Substance Abuse (CCSA). The study produced a broad picture of costs imposed on Canadian society by illicit drug abuse in 1992. By far, the largest item was productivity losses. This was the estimated value of the loss of output, as usually measured by earnings and wages (Jackson 2002). Productivity losses are indirect costs that would not show up initially in the national accounts or in the spending estimates of Government departments. The CCSA study primarily reflected productivity losses as result of illness and early death induced by drug abuse and not as a result of incarceration.

Previous research in the area of drugs and crime was based mainly on quantitative studies which indicated that there exists some association between illicit drug use and crimes committed for material gain or predatory crimes and the commission of criminal acts (Chaiken and Chaiken 1990, Sutherland and Cressey, 1970), Yearwood 2004, Garfield 2004). However, few in-depth studies have examined the nature of the links between drug use and criminal activity (Pernanen et al. 2002). The Canadian Government has initiated a set of studies aimed at estimating the strength of associations among different types of crimes and the use and abuse of psychoactive substances. The association includes the proportion of crimes in Canada that can be attributed to the use and abuse of alcohol and drugs (Pernanen et al. 2002). These factors make up the ‘attributable fractions’ that are used to evaluate the cost of drug use and crime on the society.

Research that is relevant to the estimation of Attributable Fractions on crime by alcohol and other drug use is scarce; however the literature has reported numerous studies on the relationship between alcohol and drugs on crime (Bennet 1990, Pernanen et al. 2002).

The need for establishing causality provides the framework for the calculation of costs attributable to drug use (Pernanen et al. 2002). Reviews of the literature in the alcohol and crime area have often concluded that causality cannot be established and /or that the relationship is complex. In that it involves individual, situational and socio-cultural

influences which are not easily measured (Pernanen et al. 1976, Norton and Morgan, 1989, Murdock et al. 1990, Collins and Messerschidt, 1993).

Reviews in the relationship between illicit drug use and crime have also reached similar conclusions. Greenberg and Adler (1974), Grandossy et al. 1980 and Brochu 1995, all concluded that most heroin users have committed crimes prior to heroin use, and that the drug cannot be said to have directly caused persons to commit crimes. Grandossy et al. also noted that the desire for money can lead to crime. Brochu et al. (1995) however noted that this link depends in large part on previous involvement in criminality, capacity to control the level of drug use, and the context of use including price of drugs and other sources of income.

The prevailing view summarized by Grandossy et al. (1980) was that drug use propelled income-producing crime primarily because addicts require money to buy drugs. This view was supported by the following findings:

- many serious offenders were drug users and had started using drugs as inmates;
- not all drug users became addicts, but continued drug use frequently led to more serious forms of drug addiction. (Grandossy et al. 1980).

Research also indicates that people who commit predatory crimes over long periods tend to commit other crimes and begin their criminal careers at young ages. Similarly, people who use illicit drugs often or in large quantities tend to use a variety of drugs as well as started using drugs during adolescence (Chaiken and Chaiken 1990). However, these seemingly similar groups of persistent offenders and persistent drug users are not necessarily the same people. There was also some indication that a substantial number of casual users of heroin (non-addicts) existed, but were not heavily involved in crime (Robins et al. 1980). Therefore there appears to be no simple general relation between high rates of drug use and high rates of crime (Chaiken and Chaiken 1990).

There has been introductory research conducted in Barbados on the relationship between drugs and crime. These studies included Rapid Assessment Surveys 1998 and 2000 and

The Global Youth Tobacco Surveys 1999 and 2000 (GYTS), The Relationship Between Substance Abuse and Crime Among Juvenile Offenders (2004) and The Barbados International Arrestee Drug Abuse Monitoring Survey (IADAM), (2004) which have all identified alcohol, marijuana and crack cocaine as the most problematic drugs in Barbados (Green Paper on Crime Reduction 2001). These studies show a growing trend in the use of drugs among the population and establish a possible link between drug use and criminal activity.

There has however been limited research in the area of estimating the costs attributable to drug use and estimating the economic loss to the country as a result of incarceration due to drug related crimes.

Against this background, National Council on Substance Abuse (NCSA) is attempting to pursue research which attempts to estimate the costs attributable to drug use and the economic loss to the country due to incarceration.

3. PURPOSE OF THE STUDY

The purpose of the study is to assess the relationship between substance abuse and crime among the inmates at Her Majesty's Prison at Glendairy (hereafter called Glendairy prison) and the economic loss to Barbados due to incarceration for drug related crimes.

- The overall aim is to assess the prevalence and use of legal and illegal substances among inmates in the Glendairy prison system;
- The study will provide pertinent information for the Level 1 indicator # 3 for The Inter-American Drug Abuse Control Commission (CICAD) Cost Study on the Human, Social and Economic Costs of Substance Use. This indicator refers to loss of productivity due to incarceration;
- It will also seek to identify costs attributable to drug use among inmates.

4. OBJECTIVES OF THE STUDY

The specific objectives of the proposed research are to determine:

- The relationship between drug use and criminal behaviour among inmates;
- The frequency of drug use among prison inmates;
- The number of persons imprisoned for crimes or offences associated with substance use and;
- The nature and type of offences committed by inmates associated with substance use.

5. STRATEGY FOR MEETING AIMS

The methodology is based on the study conducted by Pernanen et al. 2002 among Canadian inmates. In their methodology Pernanen et al. used cost formulae known as 'attributable fractions' (AF). The calculations of AF involved a two-stage sampling of 447 male inmates at Federal reception centres in Quebec and in Ontario. This method allowed for the selection of appropriate samples to be obtained from different sites. The two stage sampling methodology included a simple random sampling of crime events in the first instance and a further random sampling of individuals who would have committed crimes. However, Pernanen et al. acknowledged that obtaining a direct sample of crime events would complicate the drawing of conclusions.

This sampling procedure used in by Pernanen et al. (2002) included the use of the individual as the 'base' and included crimes which he or she would have committed under the influence of drugs or alcohol. The method of calculating AF was then based on knowing whether the inmate was dependent on alcohol or drugs at the time of the commission of a crime. The two stage sampling procedure used in the study was however heavily biased towards serious crimes.

6. LIMITATION OF PRISON STUDY

The prison study has a number of limitations. One of these relates to self-reporting where inmates could be underestimating their consumption and overestimating the role that consumption plays in their criminal acts. In addition, inmates may underestimate or overestimate the actual worth of monies received from criminal acts.

There may be additional costs of maintaining a prisoner in addition to inflationary costs. These costs may include additional housing costs to the prison; maintenance or hiring of additional prison and civilian staff.

Also, inmates may tend to forget the type of offence and the number of offences associated with crime. However such information can be validated through actual prison records and/or police records.

Inmates may also lie about their level of schooling, years spent at school and educational achievement. It however remains difficult to validate such information without examining educational records. The time taken to validate school records may not be possible within the allotted time for completion of this study.

Other limitations relate to the unavailability of inmates for interviews due to confinement to cells; those in maximum security and those released within the interview period.

7. METHODOLOGY

The method used in this assessment was in the form of a survey among a random stratified sample of the inmate population at Her Majesty's Prison at Glendairy, hereafter referred to as Glendairy.

7.1 Sample Population

The sample was chosen from the inmate population as listed on September 17th, 2004 at Glendairy. At that time the population numbered 1082 inmates, both male and female. In order to assess only crimes for which inmates were sentenced, inmates on remand were not used in the survey. Remand inmates are classified as those who are awaiting trial, or sentencing. This reduced the listed population to 817 inmates, hereafter referred to as the non-remand population. Note that some inmates would have been released between the listed date and time of the interviews.

A random stratified sample of 150 inmates was then chosen from the 817 non-remand inmates. Males made up 772 (94%) of the non-remand population and females numbered 45 (6%).

The random sample was stratified based on the type of crimes convicted. Criminal activity was determined based on the following ten categories. The categories were: road traffic offences (RTO), damage (criminal), robbery, theft, burglary, firearm, sexual offences, drug offences, violent crimes and other. A break down in the crimes is shown in Appendix III.

The list of inmates was then divided into the categories and the representative fraction for each crime category was established. The aim of the study was to interview a random sample of 150 inmates. The inmates were chosen from a representative fraction from each category of criminal activity (Table 1). For example the number of non-remand inmates who were convicted of robbery was 59 or 7% of the 817 non-remand inmates. Therefore 7% of the 150 or 10 inmates were randomly chosen from the inmates convicted for robbery crimes, to be part of the survey.

<i>Type of crimes</i>	Other	RTO	Damage	Robbery	Theft	Burglary	Firearm	Sexual Offence	Drugs	Violent crimes	<i>Total</i>
<i>Total</i>	52	12	12	59	133	68	68	57	200	166	<i>817</i>
<i>Percent</i>	6%	1%	1%	7%	16%	8%	8%	7%	24%	20%	<i>100</i>
<i>Sample Number</i>	9	2	2	11	24	12	12	10	37	30	<i>150</i>

Table 1: Non-remand population at Glendairy prison (as listed on September, 17th 2004) by category of convicted criminal activity and intended representative sample population

The crimes are further grouped into five categories:

1. Violent crime - murder, manslaughter, attempted murder, serious bodily harm, assault, shooting with intent and wounding;
2. Acquisitive crime – robbery, burglary theft and larceny. Note that robbery can be regarded as a violent crime but for the purposes of this study it is considered as a crime to attain money, thus it is acquisitive;
3. Sexual offences – rape, buggery, incest, serious indecency and carnal knowledge;
4. Drug crimes – illicit drug possession, sale, trafficking, production, and/or cultivation. Also, possession of drug paraphernalia, and processing chemicals;
5. Other – road traffic offenses (RTO), trespassing, fraud, criminal deception, marital arrears, firearm or gun possession, arson, loitering, kidnapping, sacrilege, and (criminal) damage.

7.2 The Survey

The survey was conducted between September 28th, through October 6th, 2004. The list of 150 inmates was divided into four groups. In cases where inmates were released, confined to the cell, refused to take part in study or otherwise pre-disposed, another inmate was randomly sampled from within their given crime category. However, at the end of the interview period 140 of the 150 chosen inmates had been interviewed. Listed in table 2 is the distribution of the interviewed population.

	Other	RTO	Damage	Robbery	Theft	Burglary	Firearm	Sexual Offence	Drugs	Violent crimes	Total
Sample Number	9	2	2	11	22	9	11	10	38	26	140
Percentage	6%	1%	1%	8%	16%	6%	8%	7%	27%	19%	

Table 2 – Frequency and percent of convicted crimes among interviewed inmates

The survey covered population demographics including gender, marital status, race, religion, education and occupation. The prevalence of drug use and crime among the inmate population, age of first drug use, type of drugs used over their lifetime and type of crimes over lifetime.

The major categories of the survey included:

1. Crimes committed under the influence of illicit drugs and alcohol. Drug use and alcohol¹ use on the day of the crime for which they are currently incarcerated and the influence of these substances on the behaviour of the inmates.
2. Crimes committed for the acquisition of drugs. Included was the inmates' opinion of the monetary value of crime committed and the average worth of crimes they have committed to obtain drugs.
3. Crimes committed due to involvement in the drug economy. These specifically included:
 - a. Conflicts during drugs sales;
 - b. Turf or gang conflicts
 - c. Revenge attacks
 - d. Conflicts with anti-drug forces (Police, Customs, Coast Guard, or Defence Force)
4. Crimes associated with the trafficking and production of drugs, including:
 - a. Small or corner sales of drugs
 - b. Clandestine laboratories;
 - c. Illicit crops;

¹ Alcohol is considered a drug, but for the purposes of this study, it is treated as a separate substance.

- d. Money laundering;
- e. Precursor chemicals;
- f. Drug trafficking.

(see questionnaire – Appendix I).

8. RESULTS FROM THE SURVEY

The results of the survey are displayed in a list of tables in Appendix II. The Statistical Package for Social Sciences (SPSS) was used to analyse the data from the survey.

8.1 Demographics

The interviewed population comprised 140 inmates, of whom 128 or 91% were male and 12 or 9% were female. The majority of the population was single at 84% (118). The population was mostly of African decent, 94% or 131 inmates (Tables A 1, A2 and A3).

The religious background covered a wide range in which most said they considered themselves Rastafarian (31 inmates or 22%), Anglican (19 or 14%), Seventh Day Adventist (15 or 11%) and Roman Catholic (14 or 10%). (Table A4)

The majority of the inmates had some form of education. Only one inmate did not answer this question. A total of 105 inmates (75%) had secondary level education and 19 inmates (14%) admitted to only a primary education, while 15 inmates or 11% had tertiary level education (Table A5).

The categories of occupation ranged from professional to unemployed. The occupation types are defined in table A6. The types of occupations are defined in Table 8a. The inmates who categorised themselves as skilled workers numbered 50 or 36% of the population, the other major category was self-employed at 40 inmates or 29% and unskilled workers were 29 inmates or 21%. Note only 9 inmates said they were unemployed. Professional and clerical type occupations were 4 inmates (3%) and 8 inmates (6%) respectively (Table A7).

As expected the majority of inmates were Barbadian citizens at 109 or 78% of the inmates surveyed. Inmates from the Caribbean territories made up 16% or 22 inmates and 9 inmates surveyed came from other countries outside the Caribbean, including United States of America, England, Columbia and Brazil (Table A8).

8.2 Lifetime Criminal Activity and Drug Use of the Surveyed Population

The inmates were asked at what age they committed their first crime, at what age they first used drugs, and their lifetime use of drugs and alcohol.

The inmates admitted to committing their first crime between the ages of 7 years and 59 years of age. The mean age of first crime is 22 years of age. A total of 110 inmates (76%) admitted to using drugs in their lifetime. The minimum age of admitted drug use was 5 years and the oldest was 33 years, with a mean age of 15 years of age (Table A9).

All 110 inmates admitted using marijuana by itself or in combination with other drugs. Ten inmates or 9% of those who admitted to drug use, used crack in combination with marijuana. Other combinations included cocaine powder, and heroin. 121 inmates admitted to alcohol use. (Table A10)

The inmates were asked what crimes they were charged for in their lifetime. In an attempt to verify the data of crime committed, 15% (or 23 inmates) of the sample population was randomly chosen and their admitted crime was compared to the actual sentenced crime as stated in their prison records. Only one inmate's sentenced crime did not match the crime they admitted to in the survey.

The single most recurring convicted offence was drug related crime (Chart 1) (26% or 37 inmates). However as a category, acquisitive crimes were more prevalent (Chart 2), with a total of 43 inmates or 31% who admitted to such crimes.

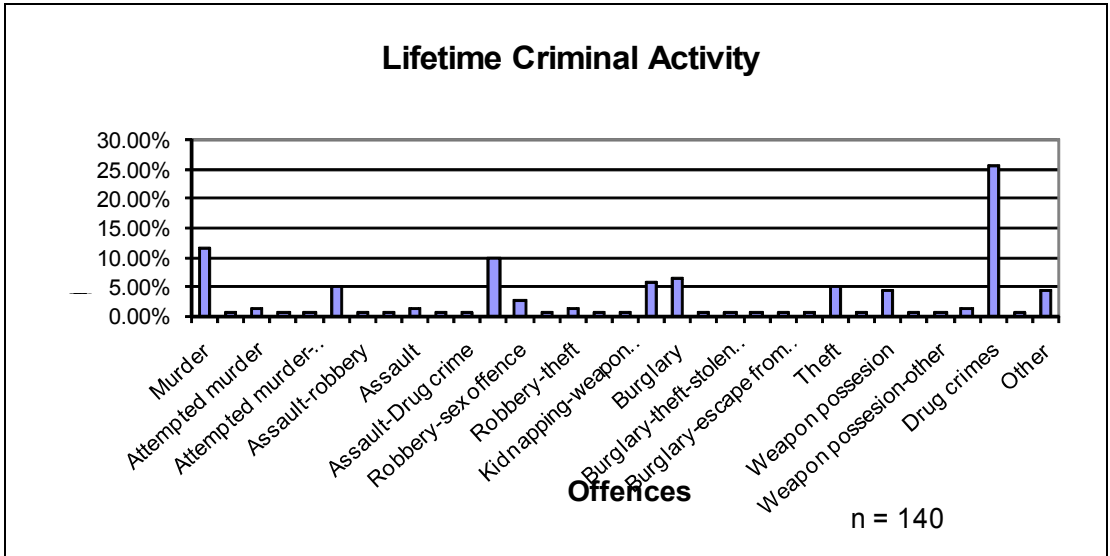


Chart 1- Frequency in percentage of crimes among the interviewed inmates.

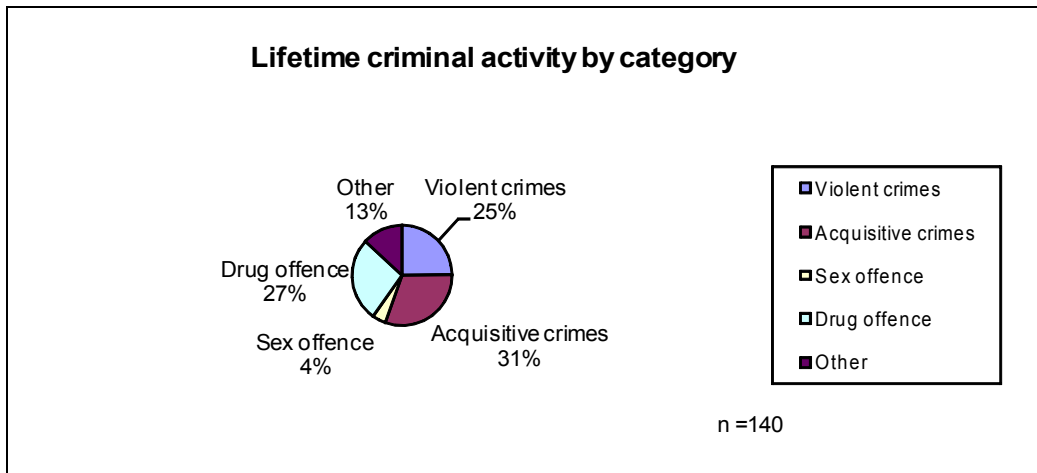


Chart 2- Distribution of admitted crimes in categories.

8.3 Involvement in Drug Related Crimes

The inmates were then asked if and what category of drug related criminal activity they had been involved in. In total, 81 or 54% of the inmates answered to being involved in one or more of the four aforementioned drug related criminal categories (Table A17). Forty two inmates said they committed crimes under the influence of drugs and alcohol; twenty inmates to obtaining drugs; forty five inmates to crimes related to the drug economy; and forty two inmates to crimes associated with drug trafficking and production (Tables A12, A13, A14, and A15).

8.4 Drug and Alcohol Use on the Day of Crime

When asked ‘what was used on the day of the crime’, 46 inmates or 33% of total sampled population admitted to using drugs and/or alcohol. Nineteen percent or 27 inmates used drugs only, 4% or 6 inmates used alcohol only, and 9% or 13 inmates used drugs and alcohol together. However, forty-two inmates went on to answer questions on crimes committed under the influence (Table A16).

In most cases, alcohol is normally considered a drug, however for the purposes of this study alcohol was treated separately. Drugs refer to illicit drugs, such as marijuana, crack cocaine, cocaine powder etc. (see list of drugs in questionnaire in Appendix I).

Thirty-eight (38) inmates or 27% of the sample population admitted to committing crimes under in the influence of drugs and/or alcohol (Table A19). Robbery and burglary were the most common crimes admitted among the 27 inmates who said they used drugs only on the day they committed the crime. Five persons or 19% of the 27 inmates admitted to committing robbery. Similarly, 5 persons admitted to burglary. Drug crimes and theft at 15% or 4 persons, each, was the next common, followed by assault at 12% (Chart 3).

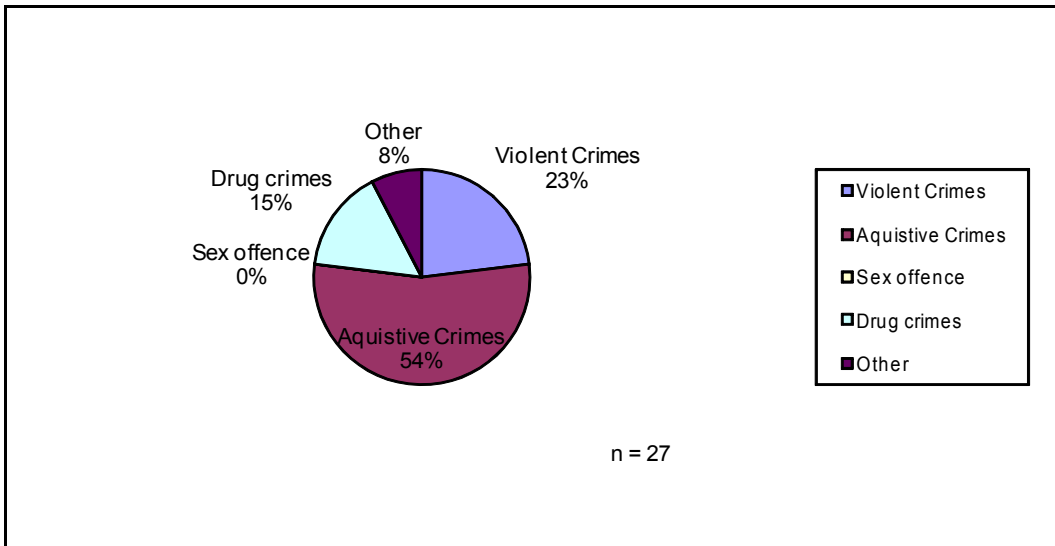


Chart 3 - Crimes admitted to under the influence of drugs only

Of the 6 inmates who committed the admitted crime under the influence of alcohol only, 2 inmates said that the crime was drug related. The other crimes included murder, sex offence, theft and other (Chart 4).

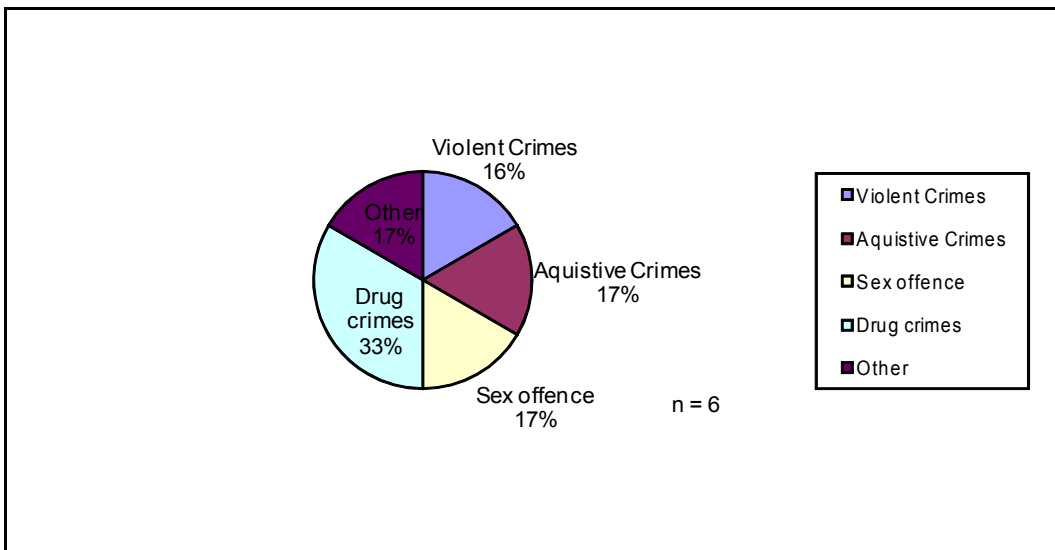


Chart 4 - Crimes admitted to under the influence of alcohol only

Thirteen inmates admitted to using both drugs and alcohol on the day of their crime. Three (3) inmates or 23% of those under the influence of drugs and alcohol committed assault and robbery, respectively. Sex offences, murder, drug crime, and theft were small

in number, representing 2 or 17%, 1 (8%), 1 (8%) and 1 (8%) respectively. One inmate admitted to an offence under ‘Other’ and one inmate did not respond to the question. (Chart 5)

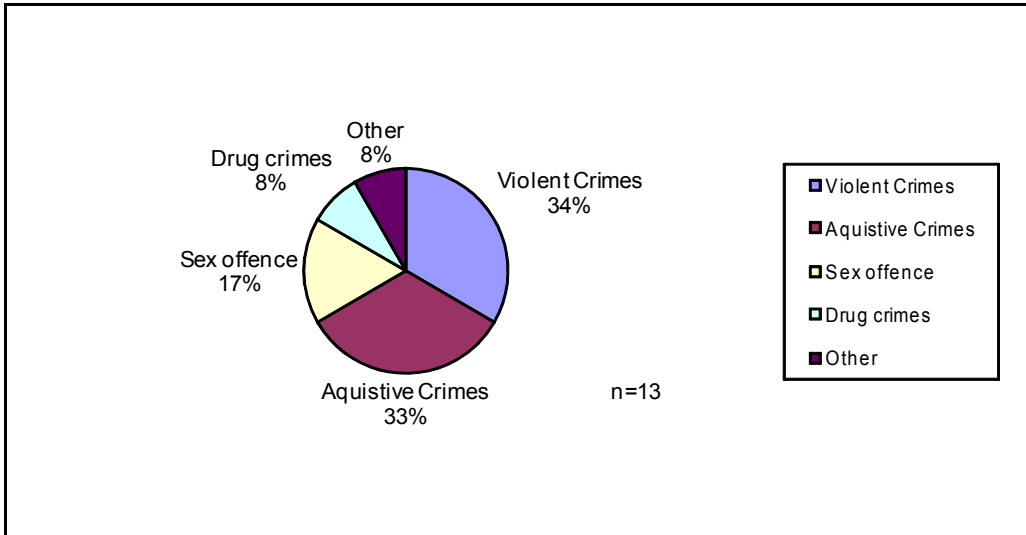


Chart 5 - Crimes admitted to under the influence of drugs and alcohol

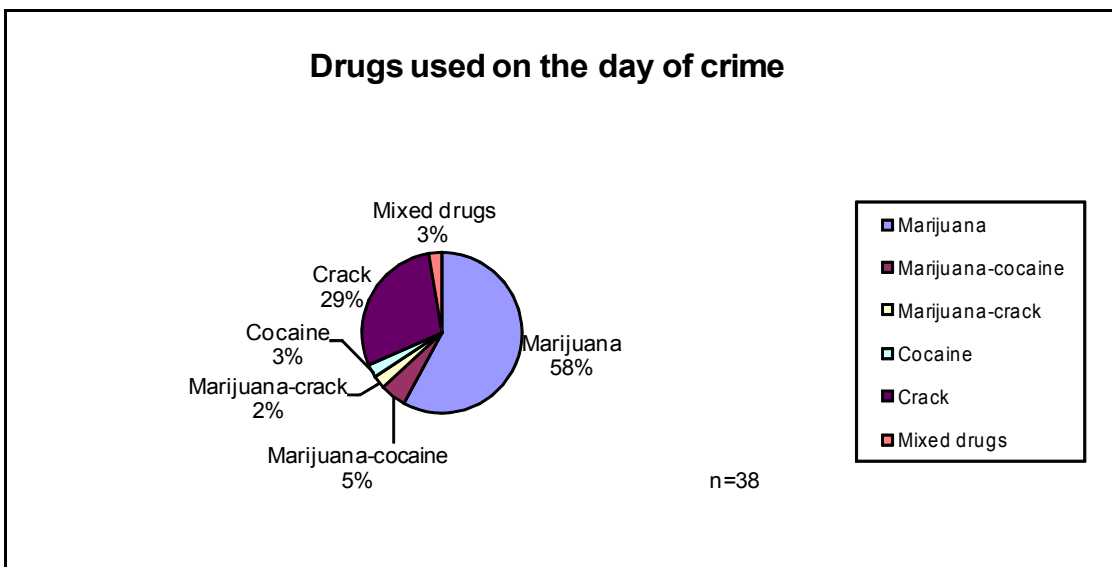


Chart 6 – Drug types used on the day of crime.

The drugs used were marijuana, cocaine powder and crack cocaine or a combination of these drugs (Chart 6). Marijuana was used by 22 persons, and of these, 8 persons with

alcohol. Eleven persons used crack cocaine and 3 inmates used this drug with alcohol (Table A19).

When asked what was the influence of the drugs at the time they committed the offence, 17 inmates or 45% of the 38 inmates who used drugs alone, or drugs and alcohol said that they were not influenced and that they would have committed the crime anyway. Ten or 26% said that they were greatly influence by use of drug and or alcohol use. Six inmates or 16% said there was little influence while 5 inmates of 13% said there was a fair amount of influence (Table A20).

There was a similar breakdown for those who used drugs alone. Of the 27 inmates that used drugs alone on the day of the crime, 13 inmates (48%) said it had no influence and 7 (26%) said that the drug had a great influence on their actions that day.

The most common reason for taking drugs was 'to relax' answered by 8 or 21% of the 38 inmates who used drugs. Seven or 18% said that taking drugs was a habit. The next most common reason was 'for a good time' and 'for stress' was the response of 5 (13%) inmates each. Only (2) inmates admitted to being addicted to drugs (Table A21).

Eleven (55%) of the 20 inmates, who used alcohol alone or alcohol with drugs said they consumed the 'same amount' of alcohol as normal on the day of the crime. Five (25%) admitted drinking 'more than usual' while 4 (20%) said that the alcohol they had consumed was 'less than usual' (Table A23).

A higher percentage of the inmates who used alcohol said that there was some influence of alcohol on their actions compared to those who used drugs. Seven or 35% of the 20 inmates said it had a great influence on them committing the crime while six inmates or 30% said that the alcohol had no influence. Five inmates (25%) said there was little influence and two or 10% said the alcohol had a fair influence (Table A24).

The reason most used for taking alcohol was to have a good time, given by 10 (50%) of the 20 inmates. 'To relax', 'for courage' and 'for stress' were the other most common reasons noted by 2 inmates (10%) each (Table A25).

8.5 Crimes Committed to Obtain Drugs

Twenty inmates or 14% of the sample population admitted committing crimes to obtain drugs. However only 19 responded to what crimes were committed. Sixteen or 84% of the nineteen inmates committed acquisitive crimes. Robbery was most common at 41% followed by burglary at 32% and theft at 11% (Table A26).

The drugs that were bought from the proceeds of the crimes committed were marijuana, cocaine, and crack. Eight persons or 42% of the 20 inmates would have bought marijuana, 4 persons or 21% wanted to buy cocaine and 7 persons or 37% intended to buy crack (Table A27).

The percentage of money spent by inmates obtained from drug related crimes on drugs was highest among the 30-50% category by 8 (or 27%) of these inmates. This was followed by 4 (or 22%) inmates in the 10-30% range and 3 or 17% inmates in the less than 10% range and 1 person in the 50-80% range. 3 or 17% inmates said they spent all moneys obtained on drugs (Table A29).

The money received from drug related crimes ranged from a minimum of BDS\$100.00 to a maximum of BDS\$300,000.00. Inmates estimated the average worth of such crimes to be worth \$BDS one (1) million dollars (Table A30).

8.6 Crimes Committed in the Drug Economy

Forty-five inmates or 32% of the sample population admitted to one or more of the crime categories relating to the drug economy (Table A14). Of those who answered this question 20 (48%) admitted to conflicts associated with drug sales; 11 (26%) inmates said that they were involved in turf conflicts; 13 (31%) inmates admitted to revenge attacks and 14 (32%) were involved in conflicts with anti-drug forces (table A32 to A35).

There was a high proportion of the crimes that were violent in nature. However the majority of inmates, 16 (35%) admitted to drug crimes. Fourteen (30%) inmates said that they committed violent crimes, including murder (2 inmates or 3%), attempted murder (3 inmates or 7%) and assault (9 inmates or 20%). Other crimes of note included robbery (4 inmates or 9%), theft (3 inmates or 7%), burglary (1 inmate or 2%), and weapon possession (2 inmates or 3%) (Table A36).

In response to frequency of involvement in crimes related to the drug economy 40 of the 42 inmates responded to this question. Twenty-three (57%) of the forty inmates said that their involvement was ‘Very seldom’; while 10 (or 25%) inmates said that their involvement occurred daily. Three (8%) inmates responded that the frequency of participation in such activities was weekly (Table A37).

With reference to the influence of the ‘drug world’ on their criminal behaviour, 38 only responded to this question. Nineteen (50%) inmates answered that the influence of drug world was less than 10% on their criminal activity. Eleven (8%) inmates said that the influence was marginal at 10% to 30%, while 2 (5%) inmates said there was some influence, Six (16%) inmates admitted that the drug world greatly affected their criminal activity (Table A38).

8.7 Crimes Related to Drug Production and Trafficking

The activities related to the drugs production and drug trafficking included the sale of drugs at street corner, the cultivation of illicit crops, money laundering, the sale of precursor chemicals² and drug trafficking.

A total of 42 or 30% of the sample population responded to involvement in the drug production and drug trafficking. Nine persons (6 %) who committed crimes related to the sale of drugs at street level or corner sales. Five persons or 3.6% were related to the

² Precursor chemicals – chemicals used in the preparation of illicit drugs for sale.

harvesting of illicit crops, six or 4.3% related to money laundering and 4 or 2.9 % related to precursor chemicals. Thirty-two or 22.9% of inmates surveyed admitted to committing crimes related to drug trafficking (Tables A39 to A44).

Interestingly, all 12 female inmates surveyed admitted to drug trafficking crimes. This was not bias in the sampling. The majority of the women currently incarcerated at Glendairy prison are in prison for drug related crimes and most have committed drug trafficking offences.

As previously noted, the crimes associated with drug production and trafficking are dominated by drug crimes. Other crimes include robbery, assault, attempted murder, and murder. Three or 7% of the 42 inmates admitted to assault. Similarly, three inmates admitted to robbery, while 2 inmates (4%) said that their crime was attempted murder and one (2%) answered to a murder charge (Table A45).

Twenty-seven or 19.3% committed drug trafficking 'very seldom'. Four or 2.9% committed these types of crimes 4 to 10 times a year. Five or 3.6% said 'daily' and 2 or 1.4% said 'weekly' (Table A46).

The majority of respondents, 23 or 16% of respondents, reported that being involved in the world of drugs had 'very little influence' on their motives to commit drug trafficking. Six or 4.3% said that being involved in the world of drugs influenced them to a large extent, that is, they would not have committed drug trafficking if they were not involved in the world of drugs (Table A47).

9. CALCULATION OF CURRENT COST

The method used to calculate the economic cost of drug related crimes to the Barbados economy follows the prescribed formula as stated in the Program to Estimate the Human, Social, and Economic Costs of Drugs in the Americas- Research Manual (Perez et al 2004).

The formula used was as follows:

$$\text{F-1 - Economic cost of a prisoner} = \text{Cost of incarceration} + \text{Loss of productivity cost}$$

where:

- i. Cost of incarceration = [(Number of conviction) x (Length of sentence) x (Daily cost of a prisoner)];
- ii. Loss of productivity cost = Number of months served in prison x legal minimum wage;

The formula uses persons who are convicted of distribution, sale, processing, or production of illicit drugs, and attempts to calculate the current cost and what it would cost if all the persons who should be incarcerated for these crimes were actually in jail.

9.1 Cost of Incarceration

$$\text{F-2 Cost of incarceration} = (\text{Length of sentence}) \times (\text{Number of convictions}) \times (\text{Daily cost of a prisoner})$$

9.1.a – Length of Sentence –

The length of sentence is taken from the prison records and is the period(s) the inmates were sentenced for their current crime(s) and represents the maximum sentenced time period. Note, the length of sentence represents a longer period than ‘time-served’ by the inmates. Thus, this figure will include an estimated future cost of housing the inmate in prison.

9.1.b - Number of Convictions –

The number represents the number of convictions for which the inmate was sentenced for his (her) current crime. Each conviction will have a designated length of sentence. Since an inmate could be sentenced for more than one conviction and be ordered to serve time for concurrent sentences or the longest sentence possible, the number of convictions, in reality is reflected in the length of sentence. Therefore multiplying by the actual number of convictions will inflate the results for some inmates.

For example, an inmate may be convicted for 3 offences on the day of sentencing. If he were sentenced for 3 years, 4 years and 5 years for his different crimes, to be served *concurrently*, then his maximum sentence or time to be served in prison will be 5 years. According to formula (F-2), his cost of incarceration would have an inflated result, that is:

$$[(3 + 4 + 5) \text{ years} \times 3 \text{ convictions} \times \text{daily cost} = 36 \text{ years} \times \text{daily cost}],$$

instead of the actual value of :

$$[(5) \text{ years} \times (1) \text{ conviction} \times \text{daily cost} = 5 \text{ years} \times \text{daily cost}].$$

Thus, for the purposes of this study the number of convictions will always be one (1).

Note, that only two of the 19 inmates were repeat offenders with multiple convictions, the other seventeen were first time offenders.

9.1.c - Daily Cost of Prisoner –

The daily cost was calculated based the costs stated in the Report of the Steering Committee on Penal Reform issued in March 1997. That report, completed in 1997, showed that the cost per inmate was \$28.30 per day in 1996. A crude estimated daily cost between 1996 and 2004 was determined based on recorded annual inflation rates (table 3). The annual inflation rate is published in the Central Bank of Barbados

Economic and Financial Statements (1996 to May, 2004). For the purposes of this study the economic cost is computed to September 17th, 2004.

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004
Inflation rate	2.4%	7.7%	-1.3%	1.6%	2.4%	2.6%	1.7%	1.6%	1.0%
Computed daily cost	\$28.30	\$28.98	\$31.21	\$30.80	\$31.30	\$32.05	\$32.88	\$33.44	\$33.97

Table 3 – Estimated daily cost per prisoner based on the daily cost of 1996 and inflation rates from 1996 to 2004.

The number of days served by each inmate was counted between January 1st, 1996 and September 17th, 2004. The cost per day was calculated using the number of days within each year the inmate has been in prison.

For example, if an inmate had been incarcerated since May 11th, 2001, then that inmate’s total number of incarcerated days will total 1047. The calculated incarceration cost will be as follows:

Year	Number of days	Daily cost by year	Cost per year	Average daily cost
2004	261 x	\$33.97 =	\$8,866.05	
2003	365 x	\$33.44 =	\$12,206.02	
2002	365 x	\$32.88 =	\$12,001.99	
2001	56 x	\$32.05 =	\$1,794.74	
Total	1047		\$34,868.79	\$33.30

Table 4 – An example of the calculation of daily cost of a prisoner at Glendairy; the average daily cost is based on time served.

Note that this is a minimum estimated cost based on the only available data. Also of special note is that this cost does not include the ‘allowances’ paid to the inmates while in prison. Currently, the allowance is \$2.50 per week and is given to the prisoners on release. In addition, monies gained from sale of products³ made at the prison are not included in this calculation.

³ Products include auto-mechanics, furniture, and paintings. The proceeds from sales and services go to the Barbados Treasury.

9.2 Loss of Productivity Cost

$$\text{F-3. } \textit{Loss of productivity cost} = (\textit{Number of months of the sentence}) \times (\textit{legal minimum wage})$$

9.2.a- Number of Months of the Sentence –

The number of months served in prison for the current sentence. For purposes of this study the figure will represent the time served from January 1st, 1996 to September 17th, 2004.

9.2.b- Legal Monthly Minimum Wage –

The legal minimum wage of Barbados is stated in the Wages Council Order of June 1997, (commonly referred to as the Shop Assistants Act). The order states that shop assistants under 18 years of age should receive \$158 per week, while those over 18 years of age should receive \$170 per week. Persons under the age of 18 years of age are not imprisoned at Glendairy, thus the minimum wage of \$170 per week or \$680 per month is used.

The use of a minimum wage in calculating the loss of productivity reasons that the calculated earnings should be the legal minimum any person could earn once employed. Considering that most of the employed inmates may earn more than the minimum wage and that the unemployed inmates would earn nothing, the minimum wage gives a rough average of what could be earned if all inmates were employed.

The loss estimate was calculated using inmates in the sampled population who were convicted of drug trafficking, and/or drug importation. In total there were 19 inmates who fell into this category.

9.3 Estimated Economic Loss

The economic loss cost for the 19 inmates in the sample population who were convicted of trafficking is listed in table 5.

INMATE S	MTHS IN PRISON	NO. OF CONVICTIONS	LENGTH OF SENTENCE	TOTAL COST PER DAY	DAILY COST	WAGES PER MTH	COST IN PRISON	ECONOMIC LOST
1	9	1	18	\$8,662.23	\$33.97	\$6,192.86	\$17,120.64	\$23,313.50
2	39	1	60	\$36,150.75	\$33.26	\$26,398.57	\$55,872.36	\$82,270.93
3	9	1	18	\$8,356.50	\$33.97	\$5,974.29	\$17,120.64	\$23,094.92
4	49	1	180	\$45,241.36	\$32.97	\$33,320.00	\$166,192.75	\$199,512.75
5	13	1	36	\$12,578.01	\$33.81	\$9,034.29	\$34,082.36	\$43,116.64
6	16	1	36	\$15,253.31	\$33.75	\$10,977.14	\$34,016.22	\$44,993.36
7	28	1	60	\$25,807.10	\$33.52	\$18,700.00	\$56,306.39	\$75,006.39
8	7	1	30	\$6,488.18	\$33.97	\$4,638.57	\$28,534.40	\$33,172.97
9	7	1	24	\$7,031.69	\$33.97	\$5,027.14	\$22,827.52	\$27,854.66
10	49	1	180	\$45,241.36	\$32.97	\$33,320.00	\$166,192.75	\$199,512.75
11	5	1	60	\$4,517.95	\$33.97	\$3,230.00	\$57,068.80	\$60,298.80
12	8	1	132	\$7,439.33	\$33.97	\$5,318.57	\$125,551.35	\$130,869.92
13	8	1	60	\$7,677.11	\$33.97	\$5,488.57	\$57,068.80	\$62,557.37
14	48	1	60	\$44,547.55	\$33.02	\$32,761.43	\$55,478.05	\$88,239.48
15	49	1	300	\$45,241.36	\$32.97	\$33,320.00	\$276,987.92	\$310,307.92
16	16	1	48	\$14,651.36	\$33.76	\$10,540.00	\$45,371.97	\$55,911.97
17	7	1	60	\$6,997.72	\$33.97	\$5,002.86	\$57,068.80	\$62,071.65
18	26	1	60	\$24,524.69	\$33.55	\$17,752.86	\$56,363.18	\$74,116.03
19	9	1	60	\$8,662.23	\$33.97	\$6,192.86	\$57,068.80	\$63,261.65
TOTAL				\$375,069.78	\$639.31	\$273,190.00	\$1,386,293.69	\$1,659,483.69
MEAN				\$19,740.51	\$33.65	\$14,378.42	\$72,962.83	\$87,341.25

Table 5 – the calculated economic cost estimated for the nineteen inmates from the sample population sentenced for drug trafficking.

The estimated cost to maintain the prisoners over the duration of their sentence is approximately BDS\$**1,386,293.69**. The average cost over eight years for these nineteen inmates was BDS\$72,962.83. The average daily cost is BDS\$33.65. Note, that the daily cost for prisoners who have been in prison for short time periods are slightly higher than those who have been in prison for a number of years. This can be tracked to inflation cost which grew annually. The total loss of productivity is estimated to be BDS \$**273,190.00**, almost four times less than the cost of housing the prisoners. The average loss of productivity is \$14,378.42. The total Economic loss to Barbados is **\$1,659,483.69**, with an average economic loss of BDS\$87,341.25 for the eight year period.

10. POLICE REPORTS

A questionnaire was sent to the Core Drug Unit, referred to as the Drug Squad and the centrally located police station of the Royal Barbados Police Force. The questionnaire asked the police to provide statistics on persons they arrested who had committed drug related crime by year from 2000 to 2004 and the estimated cost of those crimes. Table 6 list the estimated worth of drug related crimes by year. Note that this cost may reflect the worth of drugs seized from drug trafficking, possession and cultivation, and not include other monies from other drug related crimes.

Year	Percentage of drug related crime	Estimated cost of crime
2000	100%	\$42,196,500.00
2001	100%	60,145,400.00
2002	100%	49,210,500.00
2003	100%	31,410,500.00
2004	100%	30,870,000.00

Table 6 – Royal Barbados Police Force (RBPF) estimate worth of drug related crime by year

The cost of drug related crime as reported by the police is estimated at \$30,870,000.00 as of November 2004. This contrasts with the worth of monies obtained from drug related crimes by inmates estimated at approximately one million dollars.

11. DISCUSSION

The study was an attempt to estimate the cost associated with drug use among prison inmates. An attempt was made to interview 150 inmates however the actual population sized was reduced to 140 inmates who represented a 93% response rate. Although the response rate was high, individual responses to some questions were low. This limited the possibility of assessing the statistical relationships between some variables. The response to any drug related question was a maximum of 45 inmates; this represents 30% of the

total sample population. This may be a reasonable response rate if it is considered that the number of inmates who are in prison for drug related crimes represent 24% of the non-remand population.

The study showed that the majority of persons imprisoned were Barbadian citizens and they were of African descent. The most notable result from this statistic was that only one female was Barbadian. Eight of the 12 female inmates were from other Caribbean countries and three were from other countries, including United States and Brazil.

The inmates admitted to committing their first crime between the ages of 7 years and 59 years of age. The mean age of first crime is 22 years of age. A male inmate admitted to committing his first crime at 7 years of age, while a female admitted to committing her first crime at 59 years of age. It should be noted that nine (75%) of the females admitted to committing their first crime over the age of 20, seven of whom committed their first crime when they were 30 years of age or older.

The dominant religion was Rastafarian, therefore it is expected that the results would be skewed toward this religion. The majority of Rastafarians, who admitted to committing drug related crimes, answered 'yes' to crimes committed under the influence of drug or alcohol (12 of 31 inmates), crimes in the economy (12 of 31 inmates) and drug trafficking crimes (11 of 31 inmates). However, only 5 of the 31 Rastafarian inmates (less the half of those in the other categories) admitted to committing crimes to obtain drugs.

The majority of those sampled had attended secondary school. The distribution of drug related crimes and education mirror the population distribution. Therefore the majority of the inmates committing drug related crimes had some level of secondary education.

The majority of the population was skilled workers and self-employed persons followed by unskilled workers. Inmates who were skilled workers made up the largest percent group in each crime category with the exception of drug trafficking where the self-employed group was marginally larger. Skilled workers accounted for 40% of those who

committed crimes under the influence of drugs and alcohol; 30% of the inmates who committed crimes to obtain drugs and 30% of the inmates who admitted to crimes related to the drug economy. Thirteen or 31% of the inmates who were involved with drug trafficking said they were self-employed compared to 12 or 30% who were skilled.

A high number of the sampled population admitted to using drugs in their lifetime. Seventy-six percent (76%) admitted to using drugs in their lifetime. The minimum age of drug use was 5 years of age and the oldest was 33 years of age. The mean average age was 15 years. Eighty two percent (82%) of the males used drugs sometime in their lifetime compared to only a third (4 out of 12) females said they used drugs at some point. Only the male inmates admitted that they used drugs other than marijuana.

One hundred and twenty-one or 86% admitted to alcohol use. Ten of the 12 females said they drank alcohol, but only one admitted to using alcohol on the day of the crime. None of the females admitted to using drugs on the day of the crime.

11. 1 Statistics on Attributable Fractions

The assessment of Attributable Fractions follows the discussion as laid out in the Basic Protocol for Calculating Fractions Attributable to Crime.

The estimation of Attributable Fractions looks firstly at the relationship between criminal activity and drugs and alcohol use, and what effect it may have had on crimes committed. Secondly, the proportion of crimes committed to obtain drugs and the calculated drug dependency is not assessed.

11.1 i. Drug and Alcohol Influence on Crime

a) What types of crimes are associated with drug and alcohol use?

A total of 81 or 58% of the inmates interviewed said that their crime(s) were drug or alcohol related. This percentage represents crimes committed under the influence of drugs and alcohol, crimes committed to obtain drugs, crime associated with the sale of drugs and crime associated with drug trafficking and production.

- Forty-two or 30% of the inmates committed crimes under the influence of drugs and alcohol.
- Twenty-seven or 19% of those interviewed said that they used drugs only on the day of the crime.
- Four percent or 6 inmates admitted to crimes solely under the influence of alcohol.
- Nine percent or thirteen inmates said they used both drugs and alcohol.
- Twenty four percent of the violent crimes were committed when drugs and alcohol were used: 13% when drugs were used alone; 2% when alcohol was used alone and 9% when drugs and alcohol was used together.
- Forty one percent of the acquisitive crimes were committed under the influence of drugs and alcohol: 30% when drugs were used alone; 2% when alcohol was used alone and 9% when drugs and alcohol were used together.
- Fifteen percent of the drug crimes were committed when drugs and alcohol were used: 4% when drugs were used alone; 4% when alcohol was used alone and 2% when drugs and alcohol were used together.

b) What influence did the use of drugs or alcohol have on committing the crime, [i.e. had they not been under the influence of alcohol or drugs at the time would they have committed the crime]?

Of the 38 inmates, who used drugs alone, or drugs and alcohol, 17 or 45% of these said that they were not influenced by drugs, that is, they would have committed the crime anyway. Ten or 26% said that they were greatly influenced by the use of drugs at the time. Six inmates or 16% said that there was little influence while 5 inmates or 13 % said there was some influence.

Therefore, a total of 21 or 55% inmates reported some influence of drug use at the time they committed the crime. This suggests that of the inmates who would have used drugs at the time of the criminal activity, 1 out of 2 persons admitted to being influenced by drugs and/or alcohol.

There was a higher percentage of inmates who answered that the use of alcohol did have an influence on them when they committed their crime. A total of 70% or 14 of the 20 inmates who used alcohol alone or alcohol and drugs, said that they would not have committed the crime if they were not under the influence of alcohol.

Similarly, one person admitted that he was addicted to alcohol. The most common reason for using alcohol was to have a good time.

11.1.ii. Crimes to Obtain Drugs and Drug Dependency

a) What crimes were committed to obtain drugs or alcohol?

Crimes committed to obtain drugs were overwhelmingly of the acquisitive type. Sixteen or 84% of the nineteen inmates admitted to committing acquisitive crimes to buy drugs. Robbery and burglary were the most prevalent of this crime category.

The percentage of money spent by inmates on drugs with the money obtained from drug crimes ranged from 10- 30 % at its lowest to a situation where inmates spent all the monies obtained from drug crimes on drugs. The most common range of spending was in the 30-50% range.

b) Who were rated as alcohol or drug dependent? (Computer Life Style Assessment Instrument) (Pernanen et al 2002:9).

This study did not seek to calculate dependency as noted by the Computer Life Style Assessment Instrument. However the study did attempt to ascertain the reason for drug and alcohol use among inmates.

The survey did not reveal any predominant reason for the use of drugs on the day of committing the crime. Of the inmates who took drugs 2 or (5%) of the inmates admitted to being addicted to drugs. Most took drugs to relax or they were in the habit of using drugs.

11.2 Type of Crimes Associated Within the Drug World

In an evaluation of the relationship between illicit drug activities and the type of crimes committed, the results revealed some interesting but expected results. Again it should be noted that these are crimes that the inmates admitted to and not necessarily what they were convicted for.

A higher proportion of the crimes committed under the influence of drugs were acquisitive or violent type crimes while crimes committed to obtain drugs tended to be acquisitive in nature. However, there seems to be a tendency for the crimes associated with the drug economy to be more of the violent type and crimes associated with drug production and trafficking to fall mostly in the drug crime category.

When grouped into categories of crimes, acquisitive crimes accounted for 42% of the types of crimes committed under the influence of drugs and alcohol. Violent crimes accounted for 24% of the crimes followed by drug offences, which made up 17% and sex offences were 7% or 2 inmates. Other crimes were 4% (Chart 7).

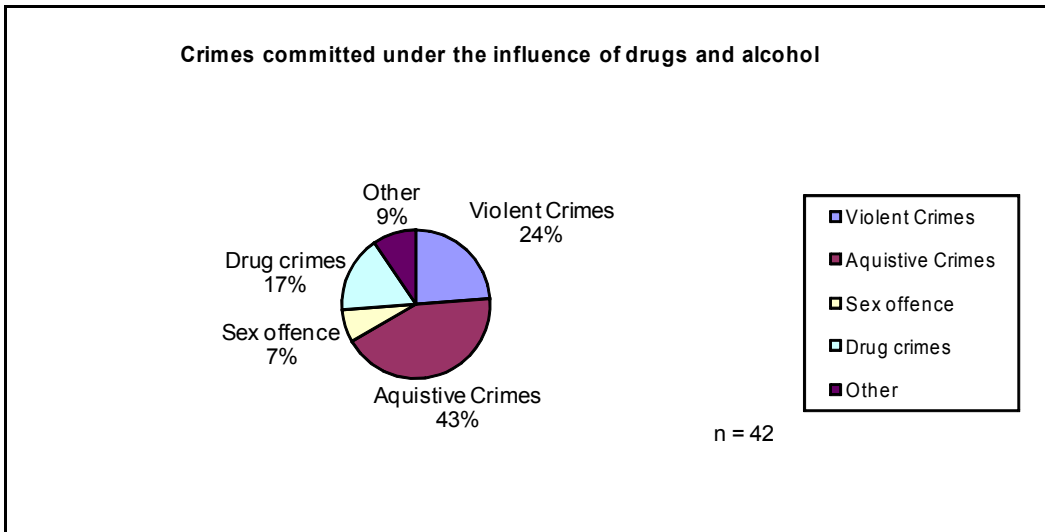


Chart 7- Type of crimes committed under the influence.

Crimes committed to obtain drugs were overwhelmingly of the acquisitive type. Sixteen of the nineteen inmates (84%) said they committed robbery, burglary or theft to obtain drugs. The other categories of crimes were drug offences which made up 11 % and violent crimes was 5% of the crimes in this category (Chart 8).

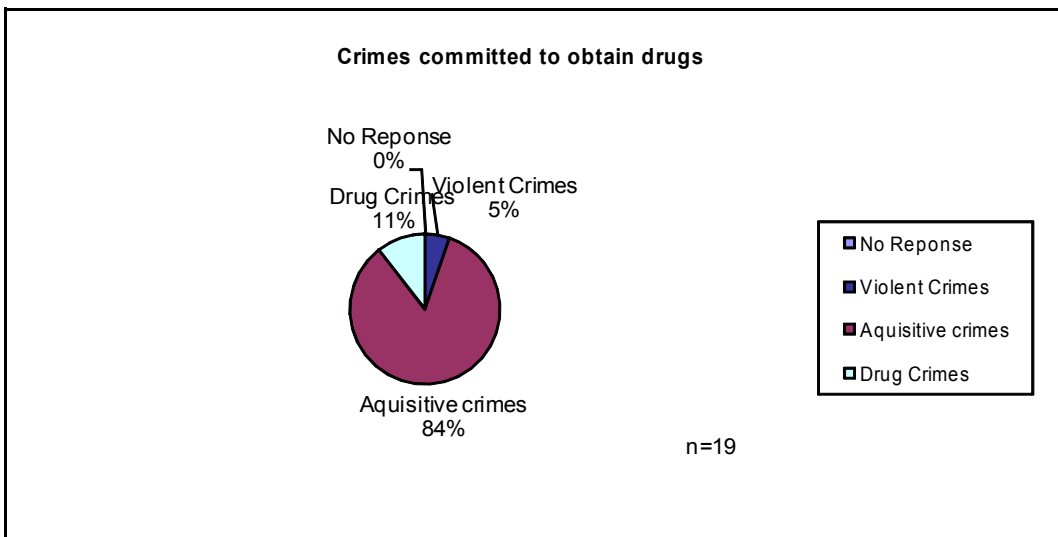


Chart 8- Type of crimes committed to obtain drugs.

The monies received from drug related crimes over lifetime use ranged from a minimum of BDS \$100.00 to a maximum of BDS \$300,000.00. One inmate reported the estimated worth of his drug crimes to be one (1) million dollars. Given the statistics from the police, this may not be an unrealistic figure. The police statistics indicate the worth of drug related crimes in excess on BDS \$30 million (or US\$15 million) annually. This estimate however is mainly the worth of seized drugs and not of the crimes committed to obtain drugs.

The police statistics clearly show a decreasing worth in drug related crimes between 2001 and 2004 (Table 6). This trend may indicate a decrease in the number of seizures or the reduced value of drugs seized. In the case of the latter, this will reflect market forces, that is, an increase in supply will lower the price. However, while economic reasoning may suggest an increase in supply, the table shows that the worth of drug related crimes have been halved between 2001 and present, therefore the most likely scenario is that the number of seizures may have decreased. This could be the result of increased police success against drug crimes.

In comparison to the previous categories, crimes related to the drug economy (or the sale of drugs), drug related and violent crimes were the most common. These crimes accounted for 39% and 34% of the 45 inmates who admitted to crimes in this category. The number of inmates who responded to this category was the highest. Most of the responses indicated that conflict with drug sales was the type of activity they were involved with. Hence, there was the tendency for the crimes to be associated with violence and drugs (Chart 9).

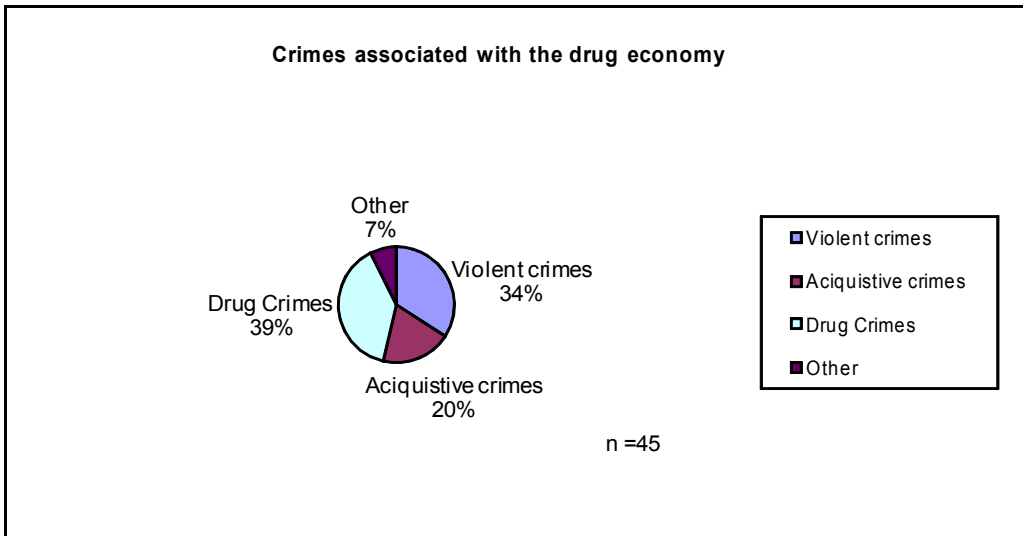


Chart 9- Type of crimes associated with the drug economy.

The frequency in which inmates participated in crimes in the drug economy ranged from very seldom to daily. More than 50% (13) inmates indicated that their involvement occurred between daily and weekly (Table A37).

A total of 42 or 30% of the sample population admitted to being involved in drug production and drug trafficking. Thirty-two or 22.9% of inmates sampled committed crimes related to drug trafficking. Of the 32 inmates, 12 were females. Drug trafficking was the prevailing crime among females. As previously noted, all twelve women in the sample admitted to drug trafficking, confirmed by the conviction records (Chart 10).

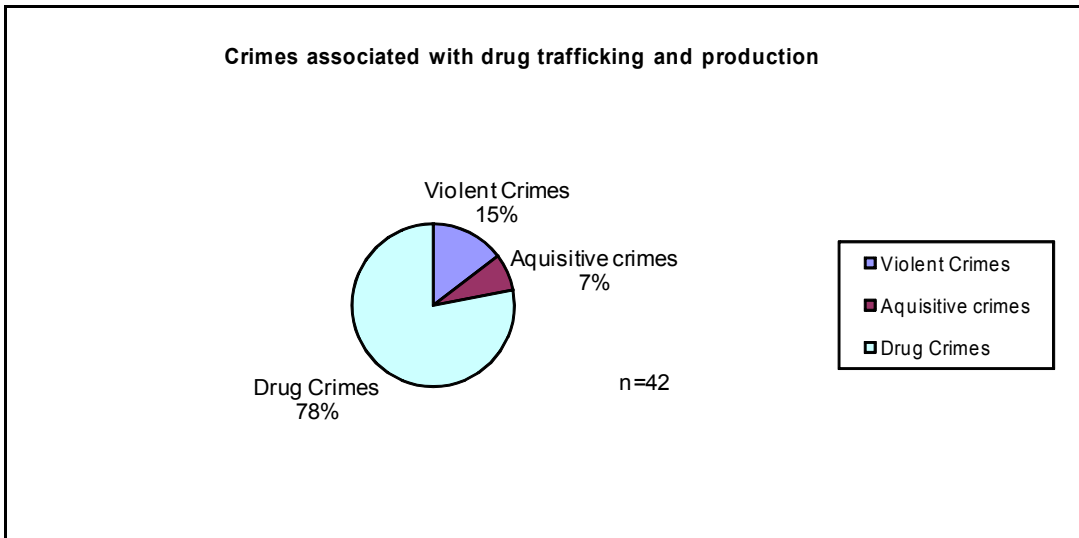


Chart 10 - Type of crimes associated with the drug production and trafficking.

The majority of inmates who answered to drug trafficking or production offences said that their involvement was very seldom and indicated that being involved in the world of drugs had very little influence on their motives to commit drug trafficking (Tables A46 and A47).

11.3 Statistical Analysis of Relationships

Statistical relationships were examined between gender, religion, occupation, age of first crime, nationality and the four drug crime categories. Pearson’s correlation (or Pearson’s r) method was used to determine if any relationships existed. Pearson’s correlation reflects the degree of the linear relationship between two variables. It ranges from –1 to +1. A correlation of +1 means that there exists a perfect positive linear relationship. A correlation of –1 means that there is a perfect negative linear relationship between variables. The value of 0 means there is no relationship between the variables.

The results showed that few relationships (a Pearson’s r between ± 0.01) were evident between most of the demographics and crime categories, with the noted exceptions of relationships between gender, nationality, age of first crime and drug trafficking.

The highest Pearson’s r-value was -0.533, resulting from an analysis of the relationship between nationality and drug trafficking. The negative value indicates that the relationship tilts in favour of the less dominant sector of the population, which in this case was the non-Barbadians. Non-Barbadians accounted for 26 (62%) of the 42 inmates who admitted to drug trafficking. Twenty of the 26 inmates were other Caribbean nationals.

The next best result came expectedly from the correlation between gender and drug trafficking crimes. The Pearson’s correlation value was – 0.460. This was again negative showing that the smaller population, the females, tend to be more involved in drug trafficking crimes.

A Pearson’s r- value of –0.216 was obtained when analysing the relationship between age of first crime and drug trafficking. Again the value was negative. In this category the tendency was that older inmates (over 30 years old), were involved in this form of drug crime.

Count of Responses to Gender Nationality and Drug trafficking

			Nationality			Total
Drug trafficking			Barbadian	Caribbean	Other	
1 Yes	Gender	1 Male	15	12	3	30
		2 Female	1	8	3	12
	Total		16	20	6	42
2 No	Gender	1 Male	91	2	3	96
	Total		91	2	3	96
3 No response	Gender	1 Male	1			1
	Total		1			1

Table 7 – The SPSS table showing the cross tabulation of respondents by gender and nationality to drug trafficking crimes

In summary, there appears to be some relationship between non-Barbadians, females over 30 years and drug trafficking.

11.4 Economic Cost of Drug Crime

The calculated economic cost of inmates who committed drug trafficking crimes were estimated at a total of BDS \$1,659,481.69 over the period 1996 to 2004. This included the cost of housing the inmates and the lost of productivity, based on the wages they could have earned if they were not in prison. Considering that the number of inmates who were in this category of crime (drug trafficking) was 19 inmates, and just fewer than 10% of the total number of inmates (200 inmates, see table 1) who were sentenced for drug related offences. It can be deduced that the cost to the Barbadian government for drug related sentences, could be in the range of \$16,600,000.00 over the last eight years. This does not include personal cost to victims; property loss; cost of law enforcement and judicial administrative cost. It can be inferred that drug related crime does represent a substantial cost to the Barbadian economy.

12. CONCLUSION

The study highlighted the rising costs associated with maintaining inmates and the estimated loss of productivity to the country if the current incarcerated inmates convicted for drug offences were not incarcerated but were gainfully employed. It was shown that with respect to drug traffickers the costs associated with maintaining them was almost four times their productivity loss to the country if they were not in prison but gainfully employed. It should however be noted that inmates received a weekly wage of \$2.50 per week from the government treasury. Inmates may also receive fifty percent of all monies for participating in work which brings revenue to the treasury. The moneys are divided equally among all inmates who participated in the activity. Inmates are also paid for

work performed which contributes revenue to the treasury according to their current grade or job status.

The study also highlighted the relationship between drug use and crime where there was some influence of drug and alcohol use at the time of committing the crime. These crimes involved both crimes of an acquisitive and violent nature. Acquisitive crimes were associated with obtaining money to buy drugs and violent crimes were associated with the drug economy. It should be noted that some of these crimes were committed for reasons which may have nothing to do with drugs, that is, inmates would have committed these crimes without the influence of drugs. However, where crimes were committed under the influence of drugs or alcohol few inmates reported being addicted to the drugs although some reported that drug use was a habit which may indicate some form of addiction.

It should be noted that that all the females interviewed were convicted for drug trafficking with over 75% of them over the age of 20 years. The phenomena associated with older females involved in drug trafficking can be a source of information for law enforcement agencies. However the reality that most of the female drug traffickers were non-Barbadian suggests that drug trafficking among females is mainly a non-Barbadian activity.

This study illustrates that drug related crime is active in Barbados currently. The cost of economic loss estimated by this study may be relatively small in comparison to the cost of crimes committed to the tourist based economy which can be affected if drug related crimes are allowed to spill over into that sector.

APPENDIX I

The Estimation of Costs Attributable to Substance Abuse and Loss of Productivity in Barbados

Cost Study Questionnaire



Hello. My name is (name of interviewer). I am an interviewer representing the National Council on Substance Abuse (NCSA). We are conducting a study on *the estimation of costs attributable to substance abuse and loss of productivity in Barbados*. Your answers are very important to us. Please grant us some of your time to complete this questionnaire.

All information given will be confidential and will only be used for statistical purpose. Your information will be held in the strictest of confidence.

**Jonathan M. Yearwood
Research and Information Officer**

**National Council on Substance Abuse
(NCSA)**

Group Number. _____; [1 to 4]

Participant Number _____; [1 to 36 or 38]

Date _____;

Reg. No: _____

*All information given will be confidential and will only be used for statistical purposes.
Your information will be held in the strictest of confidence.*

A – Personal History - Must be completed by ALL participants

A1. **Date of birth** _____ day _____ month _____ year;

A2. **Sex:** Male ()1 Female ()2

A3. **Marital Status**

Married ()1
Single ()2
Divorced ()3
Common Law ()4

A4. **Race:**

African descent ()1
European descent ()2
Asian descent ()3
Indian descent ()4
Other (please specify) _____ ()5

A5. **Religion:**

Anglican ()1
Catholic ()2
Methodist ()3
Moravian ()4
Pentecostal ()5
Wesleyan ()6
Seventh Day Adventist ()7
Jehovah Witness ()8
Hindu ()9
Muslim ()10
Rastafarian ()11
Other (please specify) _____ ()12

A6. **Highest Educational level attained**

- Primary ()1
Secondary ()2
Tertiary ()3
Other (please specify) _____()4

A7. **Occupation:**

- Professional (Lawyer, doctor, banker, teacher, etc) ()1
Clerical (Secretary, receptionist, messenger, etc) ()2
Skilled labourer (Carpenter, electrician, mechanic, etc) ()3
Unskilled labourer (Janitor, grounds keeper, store clerk) ()4
Self employed ()5
Not employed ()6

A8. **Nationality:**

- Barbadian ()1
Caribbean ()2 _____ Specify
Other ()3 _____ Specify

B - Drug and Criminal History - Must be completed by ALL participants

B1. How old were you when you first committed a crime?

_____ Years old

B2. **Over your lifetime**, have you ever used any illegal drugs?

- Yes ()1
- No ()2
- No response ()3

B3. How old were you when you first used drugs?

_____ Years old

B4. **Over your lifetime** have you ever used or tried any of the following drugs? (Not including when you were sick and needed them as medicine)

1. Marijuana or Hashish
2. Cocaine powder
3. Barbiturates
4. Amphetamines
5. Heroin
6. Valium or other tranquilizers
7. Glue or gas
8. Crack
9. Other type of drug
10. More than one drug

B4. **Over your lifetime**, have you ever had a drink of liquor, beer, wine or any other alcoholic beverage?

- Yes ()1
- No ()2
- No response ()3

C - Current Sentence - Must be completed by ALL participants

Next, set of questions are about your current sentence, the one for which you are serving time for right now.

C1. For how many crimes or charges were you convicted on your current sentence?

_____ Crimes

C2. What was that crime or crimes?

1. Murder, manslaughter, or infanticide ()1
 2. Attempted murder ()2
 3. Assault or wounding ()3
 4. Robbery or attempted robbery ()4
 5. Abduction or kidnapping ()5
 6. Sex offence ()6
 7. Break and enter ()7
 8. Theft ()8
 9. Possession of stolen property ()9
 10. Fraud or forgery ()10
 11. Extortion ()11
 12. Prostitution ()12
 13. Gaming and betting ()13
 14. Possession of weapon ()14
 15. Driving while impaired ()15
 16. Other traffic offence ()16
 17. Drug offence ()17
 18. Escape ()18
 19. Unlawfully at large ()19
 20. Other type of offence Specify: _____ ()20
-

D - Drugs and Crime Activity – Must be completed by ALL participants

D1. Did you commit crimes under the influence of drugs or alcohol?

Yes ()1

No ()2

No response ()3

D2. Have you committed crimes to obtain drugs or alcohol for your own personal use?

Yes ()1

No ()2

No response ()3

D3. Have you committed crimes involving: Sale of drugs, Turf wars or gang wars?

Yes ()1

No ()2

No response ()3

D4. Have you committed crimes related to drug trafficking?

Yes ()1

No ()2

No response ()3

D5. Did you commit a crime **NOT** related to drugs?

[If the answers to any of the questions D1 to D4 is 'Yes' then D5 is automatically 'No' proceed;

If D5 is 'Yes' and this is the end of the interview.]

Yes ()1

No ()2

No response ()3

D6. What did you use on the day of this crime or crimes?

1. Drugs ()1 (go to section E)

2. Alcohol ()2 (go to section F)

3. Both drugs and alcohol ()3 (complete E and F)

4. Neither alcohol nor drugs ()4 (go to section G)

E - Crimes under the influence of Drugs

Drugs [if answer to D1 is 'Yes' and D6 is 'Drugs' or 'Drugs and Alcohol']

We are interested in how you think drugs or alcohol may have affected you at the time of this particular crime. On the day you committed the crime(s) you are now in prison for...

E1. Were you under the influence of drugs when you committed the crime or crimes?

- Yes ()1
No ()2
No response ()3

E2. What was the crime(s) you committed under the influence of drugs?

1. Murder, manslaughter, or infanticide ()1
 2. Attempted murder ()2
 3. Assault or wounding ()3
 4. Robbery or attempted robbery ()4
 5. Abduction or kidnapping ()5
 6. Sex offence ()6
 7. Break and enter ()7
 8. Theft ()8
 9. Possession of stolen property ()9
 10. Fraud or forgery ()10
 11. Extortion ()11
 12. Prostitution ()12
 13. Gaming and betting ()13
 14. Possession of weapon ()14
 15. Driving while impaired ()15
 16. Other traffic offence ()16
 17. Drug offence ()17
 18. Escape ()18
 19. Unlawfully at large ()19
 20. Other type of offence Specify: _____ ()20
-

E3. For how many of your current crimes were you under the influence of drugs?

_____ Crimes

E4. Which drugs did you use that day?

1. Marijuana or Hashish ()1
2. Cocaine powder ()2
3. Barbiturates ()3
4. Amphetamines ()4
5. Heroin ()5
6. Valium or other tranquillizers ()6
7. Glue or gas ()7
8. Crack ()8
9. Other type of drug ()9
10. More than one drug ()10

E5. How did taking drugs make you feel about doing the crime?

1. No influence at all: ()1 -I would still have done the crime.
2. A little influence: ()2 -It lifted my inhibitions and feelings of restraint.
3. A fair amount of influence: ()3 -I felt it encouraged me to do what I did.
4. A great influence: ()4 -without consuming, I would not have done the crime.

E6. Do you think the authorities would have caught you if you had not been using drug?

- Yes ()1
No ()2
No response ()3

E7. Why do you think you were using drugs on that day, before committing the crime?

1. To relax ()1
2. To forget about my problems ()2
3. To have a good time ()3
4. To get courage ()4
5. Because I felt lonely and depressed ()5
6. Because I was under stress ()6
7. Because I was bored ()7
8. To cure withdrawal symptoms or hangovers ()8
9. To get along with other people ()9
10. To get rid of hang-ups ()10
- 11 .Habit ()11

F – Crimes under the influence of Alcohol

F1. Did you drink any alcohol on the day of any crimes on your current sentence?

- Yes ()1
- No ()2
- No response ()3

F2. What was the crime(s) you committed under the influence of alcohol?

- 1. Murder, manslaughter, or infanticide ()1
- 2. Attempted murder ()2
- 3. Assault or wounding ()3
- 4. Robbery or attempted robbery ()4
- 5. Abduction or kidnapping ()5
- 6. Sex offence ()6
- 7. Break and enter ()7
- 8. Theft ()8
- 9. Possession of stolen property ()9
- 10. Fraud or forgery ()10
- 11. Extortion ()11
- 12. Prostitution ()12
- 13. Gaming and betting ()13
- 14. Possession of weapon ()14
- 15. Driving while impaired ()15
- 16. Other traffic offence ()16
- 17. Drug offence ()17
- 18. Escape ()18
- 19. Unlawfully at large ()19
- 20. Other type of offence Specify: _____ ()20

F3. For how many of your current crimes were you under the influence of alcohol?

_____ Crimes

F4. How much did you drink on that day?

- 1. Less than usual ()1
- 2. Same as usual ()2
- 3. More than usual ()3

F5. How did drinking alcohol make you feel about doing the crime?

1. No influence at all: ()1 -I would still have done the crime.
2. A little influence: ()2 -It lifted my inhibitions and feelings of restraint.
3. A fair amount of influence: ()3 -I felt it encouraged me to do what I did.
4. A great influence: ()4 -without consuming, I would not have done the crime.

F6. Do you feel that the alcohol affected you in committing this crime?

1. Made me less likely to commit the crime ()1
2. Had no effect ()2
3. Made me more likely to commit the crime ()3

F7. Do you think you still have committed this crime if you had not been drinking alcohol?

- Yes ()1
No ()2
No response ()3

F8. Do you think the authorities would have caught you if you had not been drinking?

- Yes ()1
No ()2
No response ()3

F9. Why do you think you were drinking on that day, before committing the crime?

1. To relax ()1
2. To forget about my problems ()2
3. To have a good time ()3
4. To get courage ()4
5. Because I felt lonely and depressed ()5
6. Because I was under stress ()6
7. Because I was bored ()7
8. To cure withdrawal symptoms or hangovers ()8
9. To get along with other people ()9
10. To get rid of hang-ups ()10
11. Habit ()11

G - Subjects who committed crimes to obtain drugs. If D2 is 'Yes'

G1. Have you committed crimes to obtain money or resources to obtain or get drugs?

- Yes ()1
- No ()2
- No response ()3

G2. What was the crime(s) you committed to obtain drugs?

- 1 Murder, manslaughter, or infanticide ()1
 - 2. Attempted murder ()2
 - 3. Assault or wounding ()3
 - 4. Robbery or attempted robbery ()4
 - 5. Abduction or kidnapping ()5
 - 6. Sex offence ()6
 - 7. Break and enter ()7
 - 8. Theft ()8
 - 9. Possession of stolen property ()9
 - 10. Fraud or forgery ()10
 - 11. Extortion ()11
 - 12. Prostitution ()12
 - 13. Gaming and betting ()13
 - 14. Possession of weapon ()14
 - 15. Driving while impaired ()15
 - 16. Other traffic offence ()16
 - 17. Drug offence ()17
 - 18. Escape ()18
 - 19. Unlawfully at large ()19
 - 20. Other type of offence Specify: _____ ()20
-

G3. Which drugs did you want to obtain?

- 1. Marijuana or Hashish ()1
- 2. Cocaine powder ()2
- 3. Barbiturates ()3
- 4. Amphetamines ()4
- 5. Heroin ()5
- 6. Valium or other tranquillizers ()6
- 7. Glue or gas ()7
- 8. Crack ()8
- 9. Other type of drug ()9
- 10. More than one drug ()10

G4. How often did you commit crimes to get money from drugs?

1. Very seldom: three times a year at the most ()1
2. Between 4 and 10 times a year ()2
3. Several times a month ()3
4. Weekly ()4
5. Daily ()5

G5. How much money (do you think) you would have obtained from those crime(s)?

\$_____ Dollars

G6. What were the crimes you committed worth, on average? [interview are to make specific of this answer]

\$_____ Dollars

G7. What percentage of the money from the crimes you committed were to pay for your drugs?

1. 10% or less ()1
2. Between 10% and 30% ()2
3. Between 30% and 50% ()3
4. Between 50% and 80% ()4
5. Around 90% ()5
6. 100% ()6

H - Subjects who committed crimes because they were involved in the drug economy. - If D3 is 'Yes'

H1. Was the crime for which you were convicted related to situations such as the following?

- H1.1– Conflicts during drugs sales
 • Yes()1 No()2 No response ()3
- H1.2– Turf conflicts between drug sellers
 • Yes()1 No()2 No response ()3
- H1.3– Revenge attacks and score settling among distributors
 • Yes()1 No()2 No response ()3
- H1.4– Conflict with anti-drug law enforcement authorities
 • Yes()1 No()2 No response ()3

H2. What was the crime(s) you committed in relation to the drug economy?

1. Murder, manslaughter, or infanticide ()1
 2. Attempted murder ()2
 3. Assault or wounding ()3
 4. Robbery or attempted robbery ()4
 5. Abduction or kidnapping ()5
 6. Sex offence ()6
 7. Break and enter ()7
 8. Theft ()8
 9. Possession of stolen property ()9
 10. Fraud or forgery ()10
 11. Extortion ()11
 12. Prostitution ()12
 13. Gaming and betting ()13
 14. Possession of weapon ()14
 15. Driving while impaired ()15
 16. Other traffic offence ()16
 17. Drug offence ()17
 18. Escape ()18
 19. Unlawfully at large ()19
 20. Other type of offence Specify: _____ ()20
-

H3. How often did you commit crimes of this type?

1. Very seldom: three times a year at the most ()1
2. Between 4 and 10 times a year ()2
3. Several times a month ()3
4. Weekly ()4
5. Daily ()5

H4. Did your involvement in the world of drugs influence the commission of this crime (or of these crimes)?

1. Very little, less than 10% ()1
2. Yes, to some extent: between 10% and 30% ()2
3. Considerably so: at least 50% ()3
4. A large amount: I would not have committed these crimes anyway. ()4

I. Subjects who committed crimes related to drug trafficking. - If D4 is 'Yes'

I-1. Was the crime for which you were convicted related to situations such as the following?

- I1.1– Small-scale distribution and street-corner sales
 - Yes()1 No()2 No response ()3
- I1.2– Production (clandestine laboratories)
 - Yes()1 No()2 No response ()3
- I1.3– Illicit crops
 - Yes()1 No()2 No response ()3
- I1.4– Money laundering
 - Yes()1 No()2 No response ()3
- I1.5– Sale and distribution of inputs and precursor chemicals
 - Yes()1 No()2 No response ()3
- I1.3– Large-scale drug trafficking
 - Yes()1 No()2 No response ()3

I-2. What was the crime(s) you committed in relation to drug trafficking and production?

- 1. Murder, manslaughter, or infanticide ()1
 - 2. Attempted murder ()2
 - 3. Assault or wounding ()3
 - 4. Robbery or attempted robbery ()4
 - 5. Abduction or kidnapping ()5
 - 6. Sex offence ()6
 - 7. Break and enter ()7
 - 8. Theft ()8
 - 9. Possession of stolen property ()9
 - 10. Fraud or forgery ()10
 - 11. Extortion ()11
 - 12. Prostitution ()12
 - 13. Gaming and betting ()13
 - 14. Possession of weapon ()14
 - 15. Driving while impaired ()15
 - 16. Other traffic offence ()16
 - 17. Drug offence ()17
 - 18. Escape ()18
 - 19. Unlawfully at large ()19
 - 20. Other type of offence Specify: _____ ()20
-

I-3. How often did you commit crimes of this type?

- 1. Very seldom: three times a year at the most ()1
- 2. Between 4 and 10 times a year ()2
- 3. Several times a month ()3
- 4. Weekly ()4
- 5. Daily ()5

I-4. Did your involvement in the world of drugs influence the commission of this crime (or of these crimes)?

- 1. Very little, less than 10% ()1
- 2. Yes, to some extent: between 10% and 30% ()2
- 3. Considerably so: at least 50% ()3
- 4. A large amount: I would not have committed these crimes anyway. ()4

Thank you for your participation in the exercise.

Interviewer _____

Interviewer's comments

References:

Augusto Pérez Gómez, Ph.D. (2004): Basic Protocol for Calculating Fractions Attributable to Crime. CICAD/UMDNJ Project

Pernanen K, Cousineau M, Brochu S, Sun F (2002), *Proportions of Crimes associated with alcohol and drugs in Canada*, Canadian Centre on Substance Abuse.

APPENDIX II

Cost Study Result tables

Table A1 - Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Male	128	91.4	91.4	91.4
	2 Female	12	8.6	8.6	100.0
	Total	140	100.0	100.0	

Table A2 - Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Married	14	10.0	10.0	10.0
	2 Single	118	84.3	84.3	94.3
	3 Divorced	4	2.9	2.9	97.1
	4 Common Law	4	2.9	2.9	100.0
	Total	140	100.0	100.0	

Table A3 - Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 African	131	93.6	93.6	93.6
	2 European	5	3.6	3.6	97.1
	4 Indian	1	.7	.7	97.9
	5 Other	3	2.1	2.1	100.0
	Total	140	100.0	100.0	

Table A4 - Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Anglican	19	13.6	13.6	13.6
	2 Catholic	14	10.0	10.0	23.6
	3 Methodist	2	1.4	1.4	25.0
	5 Pentecostal	16	11.4	11.4	36.4
	6 Wesleyan	1	.7	.7	37.1
	7 Seventh Day	15	10.7	10.7	47.9
	10 Islam	1	.7	.7	48.6
	11 Rastafarian	31	22.1	22.1	70.7
	12 Other	41	29.3	29.3	100.0
	Total	140	100.0	100.0	

Table A5 - Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Primary	19	13.6	13.7	13.7
	2 Secondary	105	75.0	75.5	89.2
	3 Tertiary	15	10.7	10.8	100.0
	Total	139	99.3	100.0	
Missing	0	1	.7		
Total		140	100.0		

Table A6 – List of Occupations

- | | | |
|-------------------|---|---|
| Professional | - | Lawyer, doctor, banker, teacher, etc; |
| Clerical | - | Secretary, receptionist, messenger, etc; |
| Skilled laborer | - | Carpenter, electrician, mechanic, chefs, etc; |
| Unskilled laborer | - | Janitor, grounds keeper, store clerk., maids etc; |
| Self employed | | |
| Not employed | | |

Table A7 - Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Professional	4	2.9	2.9	2.9
	2 Clerical	8	5.7	5.7	8.6
	3 Skilled	50	35.7	35.7	44.3
	4 Unskilled	29	20.7	20.7	65.0
	5 Self employed	40	28.6	28.6	93.6
	6 Unemployed	9	6.4	6.4	100.0
	Total	140	100.0	100.0	

Table A8 - Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Barbadian	109	77.9	77.9	77.9
	2 Caribbean	22	15.7	15.7	93.6
	3 Other	9	6.4	6.4	100.0
	Total	140	100.0	100.0	

Table A9 - Age of First Crime and First Drug Use

	N	Minimum	Maximum	Mean	Std. Deviation
AGE_OF_F Age of first crime	137	7	59	22.17	9.21
FIRST_US First used drugs	107	5	33	15.26	4.81

Table A10 - Lifetime Use Illegal Drugs

	Frequency	Percent	Valid Percent	Cumulative Percent
--	-----------	---------	---------------	--------------------

Valid	1 Yes	109	77.9	77.9	77.9
	2 No	30	21.4	21.4	99.3
	3 No response	1	.7	.7	100.0
	Total	140	100.0	100.0	

Table A11 - Type of Drugs Used - Lifetime		
Type of drugs	Frequency	Percent
Marijuana	84	60.00%
Marijuana-Cocaine	6	4.29%
Marijuana-Cocaine-Crack	8	5.71%
Marijuana-Cocaine-Mixed drugs	1	0.71%
Marijuana-Heroin-Crack	1	0.71%
Marijuana-Crack	10	7.14%
	110	78.57%
No	30	21.43%
Total	140	100.00%

Table A12 - Crimes Committed Under the Influence of Drug or Alcohol

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	42	30.0	30.4	30.4
	2 No	96	68.6	69.6	100.0
	Total	138	98.6	100.0	
Missing	0	2	1.4		
Total		140	100.0		

Table A13 - Crimes Committed to Obtain Drugs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	20	14.3	14.4	14.4
	2 No	119	85.0	85.6	100.0
	Total	139	99.3	100.0	
Missing	0	1	.7		
Total		140	100.0		

Table A14 - Crimes Associated with the Drug Economy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	45	32.1	32.4	32.4
	2 No	94	67.1	67.6	100.0
	Total	139	99.3	100.0	
Missing	0	1	.7		
Total		140	100.0		

TableA15- Crimes Associated with Drug Production or Drug Trafficking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	42	30.0	30.2	30.2
	2 No	96	68.6	69.1	99.3
	3 No response	1	.7	.7	100.0
	Total	139	99.3	100.0	
Missing	0	1	.7		
Total		140	100.0		

Table A16 - What Substances Were Used the Day of Crime

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 Drugs	27	19.3	27.8	27.8
	2 Alcohol	6	4.3	6.2	34.0
	3 Drugs and Alcohol	13	9.3	13.4	47.4
	4 Neither	51	36.4	52.6	100.0
	Total	97	69.3	100.0	
Missing	0	42	30.0		
	System	1	.7		
	Total	43	30.7		
Total		140	100.0		

Table A17 – Was the Committed Crime Not Drug Related?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	56	40.0	40.9	40.9
	2 No	81	57.9	59.1	100.0
	Total	137	97.9	100.0	
Missing	0	3	2.1		
Total		140	100.0		

**Tables A18 to A21– Related to Crime committed under the influence
Illicit Drugs**

Table A 18 – Crimes Committed Under the Influence of Drugs (and/or Alcohol)

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 Murder	3	2.1	7.9	7.9
	2 Attempted murder	1	.7	2.6	10.5
	3 Assault	6	4.3	15.8	26.3
	4 Robbery	8	5.7	21.1	47.4
	6 Sex offence	2	1.4	5.3	52.6
	7 Break and enter	5	3.6	13.2	65.8
	8 Theft	5	3.6	13.2	78.9
	11 Extortion	1	.7	2.6	81.6
	14 Weapon possession	1	.7	2.6	84.2
	17 Drug offence	5	3.6	13.2	97.4
	20 Other	1	.7	2.6	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Table A19 – Type of Drugs Used on the Day of the Crime

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Marijuana	25	17.9	65.8	65.8
	2 Cocaine	1	.7	2.6	68.4
	8 Crack	11	7.9	28.9	97.4
	10 Mixed drugs	1	.7	2.6	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Table A20 - Feeling Using Drugs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No influence	17	12.1	44.7	44.7
	2 Little influence	6	4.3	15.8	60.5
	3 Fair influence	5	3.6	13.2	73.7
	4 Great influence	10	7.1	26.3	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Table A21 - Why Did You Use Drugs?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 To relax	8	5.7	21.1	21.1
	2 To forget problems	1	.7	2.6	23.7
	3 For a good time	5	3.6	13.2	36.8
	4 For courage	4	2.9	10.5	47.4
	5 Was depressed	3	2.1	7.9	55.3
	6 Was stress	5	3.6	13.2	68.4
	7 Was bored	2	1.4	5.3	73.7
	8 Addicted	2	1.4	5.3	78.9
	10 rid of hang up	1	.7	2.6	81.6
	11 Habit	7	5.0	18.4	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Tables A22 to A25– Related to Crime committed under the influence – Alcohol

Table A22 - Crimes Committed Under the Influence of Alcohol (and/or Drugs)

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 Murder	2	1.4	10.5	10.5
	3 Assault	2	1.4	10.5	21.1
	4 Robbery	3	2.1	15.8	36.8
	6 Sex offence	3	2.1	15.8	52.6
	7 Break and enter	3	2.1	15.8	68.4
	8 Theft	1	.7	5.3	73.7
	14 Weapon possession	1	.7	5.3	78.9
	17 Drug offence	3	2.1	15.8	94.7
	20 Other	1	.7	5.3	100.0
	Total	19	13.6	100.0	
Missing	0	121	86.4		
Total		140	100.0		

Table A23 - Amount Alcohol Consumed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than usual	4	2.9	20.0	20.0
	2 Same as usual	11	7.9	55.0	75.0
	3 More than usual	5	3.6	25.0	100.0
	Total	20	14.3	100.0	
Missing	0	120	85.7		
Total		140	100.0		

Table A24 - Alcohol Effect

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 No influence	6	4.3	30.0	30.0
	2 Little influence	5	3.6	25.0	55.0
	3 Fair influence	2	1.4	10.0	65.0
	4 Great influence	7	5.0	35.0	100.0
	Total	20	14.3	100.0	
Missing	0	120	85.7		
Total		140	100.0		

TableA25 – Why Consume Alcohol?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 To relax	2	1.4	10.0	10.0
	2 To forget problems	1	.7	5.0	15.0
	3 For a good time	10	7.1	50.0	65.0
	4 For courage	2	1.4	10.0	75.0
	5 Was depressed	1	.7	5.0	80.0
	6 Was stress	2	1.4	10.0	90.0
	7 Was bored	1	.7	5.0	95.0
	8 Addicted	1	.7	5.0	100.0
	Total	20	14.3	100.0	
Missing	0	120	85.7		
Total		140	100.0		

Tables A26 to A31– Related to Crime committed to obtain drugs

Table 26 – Types of Crimes Committed to Obtain Drugs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Murder	1	.7	5.3	5.3
	4 Robbery	8	5.7	42.1	47.4
	7 Break and enter	6	4.3	31.6	78.9
	8 Theft	2	1.4	10.5	89.5
	17 Drug offence	2	1.4	10.5	100.0
	Total	19	13.6	100.0	
Missing	0	121	86.4		
Total		140	100.0		

TableA27 – Type of Drugs That Would Have Been Bought

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Marijuana	8	5.7	42.1	42.1
	2 Cocaine	4	2.9	21.1	63.2
	8 Crack	7	5.0	36.8	100.0
	Total	19	13.6	100.0	
Missing	0	121	86.4		
Total		140	100.0		

Table A28- Frequency of Committed Crimes to Buy Drugs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Very seldom	6	4.3	33.3	33.3
	2 Between 4 to 10 times a year	1	.7	5.6	38.9
	3 Monthly	2	1.4	11.1	50.0
	4 Weekly	3	2.1	16.7	66.7
	5 Daily	6	4.3	33.3	100.0
	Total	18	12.9	100.0	
Missing	0	122	87.1		
Total		140	100.0		

Table A29 - What Percentage of the Earning from you would go towards drugs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 < 10%	3	2.1	16.7	16.7
	2 10% to 30%	4	2.9	22.2	38.9
	3 30 % to 50%	5	3.6	27.8	66.7
	4 50% to 80%	1	.7	5.6	72.2
	5 about 90%	2	1.4	11.1	83.3
	6 100%	3	2.1	16.7	100.0
	Total	18	12.9	100.0	
Missing	0	122	87.1		
Total		140	100.0		

Table A30 - Estimated Amount of Money Received from Crimes to Obtain Drugs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$0.00	121	86.4	86.4	86.4
	\$100.00	2	1.4	1.4	87.9
	\$200.00	1	.7	.7	88.6
	\$400.00	2	1.4	1.4	90.0
	\$600.00	1	.7	.7	90.7
	\$1,500.00	1	.7	.7	91.4
	\$8,000.00	1	.7	.7	92.1
	\$8,760.00	1	.7	.7	92.9
	\$13,000.00	1	.7	.7	93.6
	\$15,000.00	1	.7	.7	94.3
	\$17,000.00	1	.7	.7	95.0
	\$20,000.00	1	.7	.7	95.7
	\$40,000.00	2	1.4	1.4	97.1
	\$72,000.00	1	.7	.7	97.9
	\$100,000.00	1	.7	.7	98.6
	\$150,000.00	1	.7	.7	99.3
	\$300,000.00	1	.7	.7	100.0
	Total	140	100.0	100.0	

Table A31 - Average Worth of Drugs Admitted by Inmates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$0.00	124	88.6	88.6	88.6
	\$400.00	1	.7	.7	89.3
	\$500.00	3	2.1	2.1	91.4
	\$600.00	1	.7	.7	92.1
	\$800.00	2	1.4	1.4	93.6
	\$1,250.00	1	.7	.7	94.3
	\$2,000.00	3	2.1	2.1	96.4
	\$13,000.00	1	.7	.7	97.1
	\$25,000.00	1	.7	.7	97.9
	\$72,000.00	1	.7	.7	98.6
	\$250,000.00	1	.7	.7	99.3
	\$1,000,000.00	1	.7	.7	100.0
	Total	140	100.0	100.0	

Tables A32 to - Crimes Related to the Drug Economy

Table A32 - Conflicts in Drug Sales

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	20	14.3	47.6	47.6
	2 No	18	12.9	42.9	90.5
	3 No response	4	2.9	9.5	100.0
	Total	42	30.0	100.0	
Missing	0	98	70.0		
Total		140	100.0		

Table A33 - Turf Conflicts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	11	7.9	26.2	26.2
	2 No	26	18.6	61.9	88.1
	3 No response	5	3.6	11.9	100.0
	Total	42	30.0	100.0	
Missing	0	98	70.0		
Total		140	100.0		

Table A34 -Revenge Attacks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	13	9.3	31.0	31.0
	2 No	25	17.9	59.5	90.5
	3 No response	4	2.9	9.5	100.0
	Total	42	30.0	100.0	
Missing	0	98	70.0		
Total		140	100.0		

Table A35 - Conflict with Anti-drug Force

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	1 Yes	14	10.0	32.6	32.6
	2 No	24	17.1	55.8	88.4
	3 No response	5	3.6	11.6	100.0
	Total	43	30.7	100.0	
Missing	0	97	69.3		
Total		140	100.0		

Table A36- Type of Crimes Committed Associated With the Drug Economy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Murder	2	1.4	4.9	4.9
	2 Attempted murder	3	2.1	7.3	12.2
	3 Assault	9	6.4	22.0	34.1
	4 Robbery	4	2.9	9.8	43.9
	7 Break and enter	1	.7	2.4	46.3
	8 Theft	3	2.1	7.3	53.7
	14 Weapon possession	2	1.4	4.9	58.5
	17 Drug offence	16	11.4	39.0	97.6
	20 Other	1	.7	2.4	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A37- Frequency of Economy Crime

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	1 Very seldom	23	16.4	57.5	57.5
	2 4 to 10 times a year	2	1.4	5.0	62.5
	3 Monthly	2	1.4	5.0	67.5
	4 Weekly	3	2.1	7.5	75.0
	5 Daily	10	7.1	25.0	100.0
	Total	40	28.6	100.0	
Missing	0	100	71.4		
Total		140	100.0		

Table A38 - Influence of Drug World

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 < 10%	19	13.6	50.0	50.0
	2 10% to 30%	11	7.9	28.9	78.9
	3 < 50%	2	1.4	5.3	84.2
	4 Large amount	6	4.3	15.8	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Tables A39 to A47 - Crimes to Drug Production and Drug Trafficking

Table A39 - Corner Sales

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 Yes	9	6.4	22.5	22.5
	2 No	22	15.7	55.0	77.5
	3 No response	9	6.4	22.5	100.0
	Total	40	28.6	100.0	
Missing	0	100	71.4		
Total		140	100.0		

Table A40 - Clandestine Labs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1	.7	2.4	2.4
	2 No	30	21.4	73.2	75.6
	3 No response	10	7.1	24.4	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A41 - Illicit Crops

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	1 Yes	5	3.6	12.2	12.2
	2 No	27	19.3	65.9	78.0
	3 No response	9	6.4	22.0	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A42- Money Laundering

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	6	4.3	14.6	14.6
	2 No	25	17.9	61.0	75.6
	3 No response	10	7.1	24.4	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A43 - Precursor Chemicals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	4	2.9	9.8	9.8
	2 No	27	19.3	65.9	75.6
	3 No response	10	7.1	24.4	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A44 – Drug Trafficking

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	1 Yes	32	22.9	76.2	76.2
	2 No	8	5.7	19.0	95.2
	3 No response	2	1.4	4.8	100.0
	Total	42	30.0	100.0	
Missing	0	98	70.0		
Total		140	100.0		

Table A45 - Type of Crimes Associated with Drug Production and Trafficking

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Murder	1	.7	2.4	2.4
	2 Attempted murder	2	1.4	4.9	7.3
	3 Assault	3	2.1	7.3	14.6
	4 Robbery	3	2.1	7.3	22.0
	17 Drug offence	32	22.9	78.0	100.0
	Total	41	29.3	100.0	
Missing	0	99	70.7		
Total		140	100.0		

Table A46- Frequency of Trafficking Crime

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Very seldom	27	19.3	71.1	71.1
	2 4 to 10 times a year	4	2.9	10.5	81.6
	4 Weekly	2	1.4	5.3	86.8
	5 Daily	5	3.6	13.2	100.0
	Total	38	27.1	100.0	
Missing	0	102	72.9		
Total		140	100.0		

Table A47 - Influence of Drug World on Committing these Crimes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 < 10%	23	16.4	65.7	65.7
	2 10% to 30%	3	2.1	8.6	74.3
	3 < 50%	3	2.1	8.6	82.9
	4 Large amount	6	4.3	17.1	100.0
	Total	35	25.0	100.0	
Missing	0	105	75.0		
Total		140	100.0		

APPENDIX III

Classification of convicted crimes of inmates held at Her Majesty's Prison at Glendairy

Road Traffic Offences (RTO)	- Driving under the influence; Reckless Endangerment;
Damage (criminal)	- Damage to property;
Robbery	- Robbery [Stealing from a person or persons];
Theft	- Theft, Larceny [stealing property];
Burglary	- Breaking and entering;
Firearm	- Firearm possession, gun possession;
Sexual offences	- Rape, Serious indecency, buggary, carnal knowledge, incest
Drug offences	- Drug possession, drug trafficking, drug Importation, Possession of drug paraphernalia, Default of fine for drug crimes;
Violent crimes	- Murder, manslaughter, attempted murder, assault,
Other	- Arson, trespassing, fraud, criminal deception, marital arrears, loitering, kidnapping, and sacrilege.

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